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Cover 1, p. 2,

57-63.

NOVEMBER 1979

# Pension World

The Magazine for Plan Sponsors / A Publication of Communication Channels, Inc.

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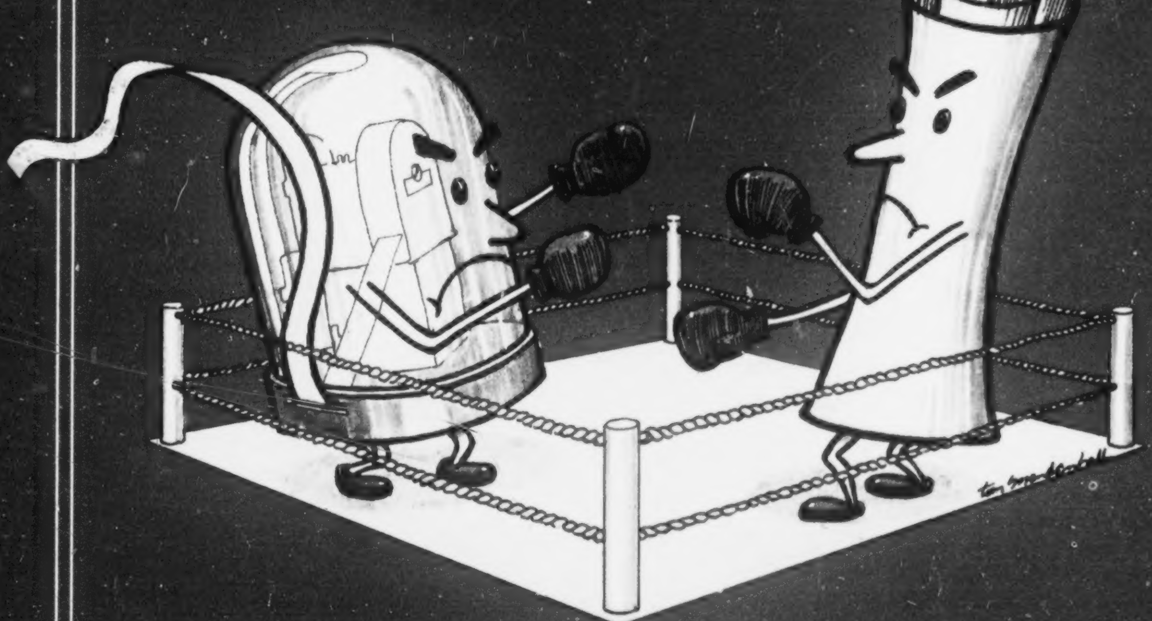
## Debt securities vs equities

### Does today's economy favor either?



Davis, First Boston...Hoffman, Merrill Lynch...
Rolland, Chemical Bank...pull no punches on the question.

## Consumers Power–Walking the portfolio tightrope.

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## Sixth annual survey of state retirement systems.

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Volume 15, Number 11

November 1979

# Pension World

The Magazine for Plan Sponsors / *A Publication of Communication Channels, Inc.*

**Joseph Shore**
President
**Cyril Lee Ellison**
Publisher
**Harvey Bandremer**
Associate Publisher
**George Adcock**
Editor
**Diana H. Parker**
Associate Editor
**Steven E. Schanes**
Editorial Consultant
**Charles E. Lloyd**
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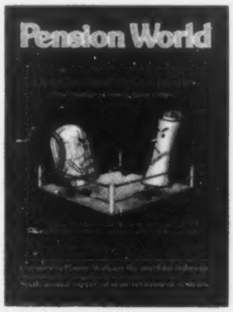

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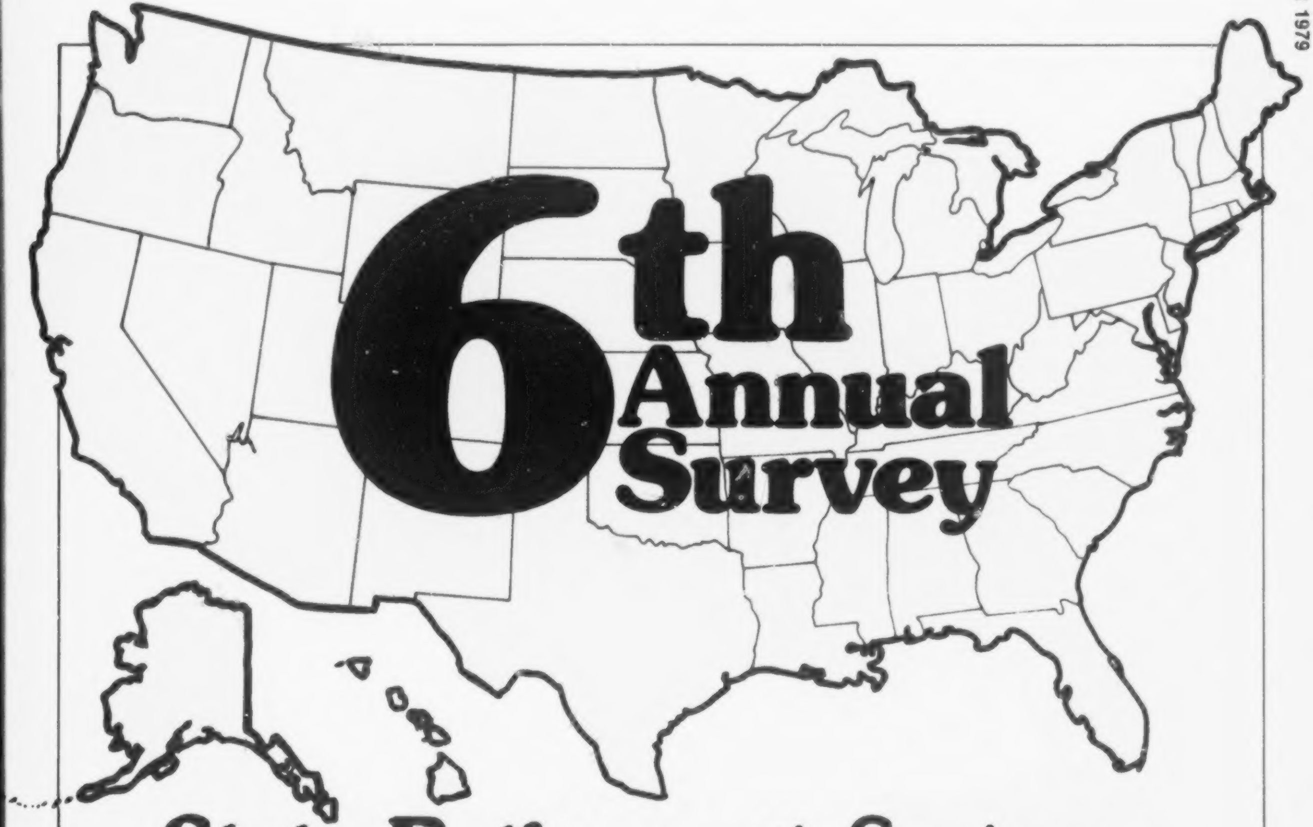

# 6th Annual Survey

# State Retirement Systems

- Where the money is.
- Who's managing it.
- How the portfolio is structured.

| Name & Address of fund | Person to contact | Total assets (in millions) | Common stock (in millions) | Preferred stock (in millions) | U.S. Govt. securities (in mills) |
|---|---|---|---|---|---|
| **Employees' Retirement System**<br>**The Retirement Systems of Ala.**<br>135 South Union St.<br>Montgomery, AL 36130<br>205/832-4140 | David G. Bronner<br>Sec.-Treas., The Retirement Systems of Ala. | $ 747.1 | $ 46.8 | | $ 3.9 |
| **Judicial Retirement Fund**<br>**The Retirement Systems of Ala.**<br>135 South Union St.<br>Montgomery, AL 36130<br>205/832-4140 | David G. Bronner<br>Sec.-Treas., The Retirement Systems of Ala. | 33.6 | | | |
| **Teachers' Retirement System**<br>**The Retirement Systems of Ala.**<br>135 South Union St.<br>Montgomery, AL 36130<br>205/832-4140 | David G. Bronner<br>Sec.-Treas., The Retirement Systems of Ala. | 1,843.0 | 83.7 | | 14.4 |
| **Arizona State Retirement System**<br>P.O. Box 33910<br>Phoenix, AZ 85067<br>602/255-5131 | Max Sullivan<br>Director | 1,273.2 | 310.6 | 310.6 | 302 |
| **Public Employees' Retirement Association of Colorado**<br>1300 Logan<br>Denver, CO 80203 | Joseph P. Natale<br>Exec. Secretary | 1,486.3 (mkt.)<br>1,585.7 (bk.) | 243.6 (mkt.)<br>243.9 (bk.) | | 121.7 (mkt.)<br>127.6 (bk.) |
| **Fla. Retirement System Trust Fund**<br>**Div. of Retirement**<br>Carlton Bldg.<br>Room 530<br>Tallahasee, FL 32301 | Robert L. Kennedy, Jr.<br>State Retirement Dir. | 2,915.5 | 158.3 | | 15.6 |
| **Employees' Retirement System of Ga.**<br>2 Northside 75<br>Atlanta, GA 30318<br>404/656-2151 | Graham R. Lynch<br>Dir.-Div. of Investment Services | 615 (bk.)<br>593 (mkt.) | 172 (bk.)<br>174 (mkt.) | | 69 (bk.)<br>67 (mkt.) |
| **Teachers Retirement System of Ga.**<br>2 Northside 75<br>Atlanta, GA 30318<br>404/656-2151 | Graham R. Lynch<br>Dir.-Div. of Investment Services | 1,458 (bk.)<br>1,380 (mkt.) | 434 (bk.)<br>430 (mkt.) | | 210 (bk.)<br>199 (mkt.) |
| **State Universities Retirement System**<br>50 Gerty Dr.<br>Champaign, IL 61820<br>217/333-3860 | Donald E. Hoffmeister<br>Executive Director | 751.2 | 282.6 (mkt.)<br>279.0 (bk.) | N/A | 43.2 (mkt.)<br>46.2 (bk.) |
| **Indiana Public Employees' Retirement Fund**<br>143 W. Market St.<br>Suite 800<br>Indianapolis, IN 46204<br>317/232-1606 | Harold J. Egenes<br>Exec. Secretary | 541.2 | | | 208.7 (bk.)<br>195.9 (mkt.) |
| **Iowa Public Employees Retirement System**<br>1000 E. Grand Ave.<br>Des Moines, IA 50319<br>515/281-5727 | Ed R. Longnecker<br>Director | 954.9 (bk.) | 78.0 (bk.) | | 187.0 |
| **Kansas Public Employees Retirement System**<br>400 First Natl. Bank Tower<br>One Townsite Plaza<br>Topeka, KS 66603<br>913/296-3921 | John K. Corkhill<br>Executive Secy. | 621.7 | 201.4 | .7 | 6.8 |
| **Kentucky Teachers' Retirement System**<br>216 W. Main St.<br>Frankfort, KY 40601 | Pat N. Miller<br>Exec. Sec. | 731.8 | 108.4 (bk.)<br>91.4 (mkt.) | | 297.9 (bk.) |
| **Louisiana State Employees Retirement System**<br>P.O. Box 44213<br>Baton Rouge, LA 70804<br>504/342-5070 | Vernon Strickland<br>Director | 703.5 | 42.4 | 31.9 | 247.5 |
| **Maine State Retirement System**<br>State Office Bldg.<br>Augusta, ME 04333<br>207/289-3461 | William G. Blodgett<br>Exec. Director | 242.1 | 100.2 | .3 | |
| **Michigan Judges Retirement Fund**<br>P.O. Box 30026<br>Lansing, MI 48909 | Gerald H. Miller<br>Director-Dept. of Management & Budget | 22.1 | 3.1 | | |

| Corporate bonds (in millions) | Mortgages (in millions) | Cash and short-term securities (in millions) | Other (in millions) | Reporting date | Investment advisers |
|---|---|---|---|---|---|
| $ 333.7 | $ 48.9 | $ 39.5 | $ 274.4 | 9/30/78 | Internal Admin |
| 3.0 | | 1.8 | 28.8 | 9/30/78 | Internal Admin |
| 727.5 | 142.1 | 75.0 | 800.2 | 9/30/78 | Internal Admin |
| 339.6 | 72.7 | 246.4 | 1.9 | 6/30/78 | Bernstein-Macaulay, Inc., Citizens & Southern Investment Counseling, Inc., Kemper Financial Services, Inc., Scudder, Stevens & Clark, Inc., Valley National Bank, First Pennsylvania Bank, Funds Advisory Co.; Blyth Eastman Dillon & Co., Inc., E. F. Hutton & Co., Fund Monitoring Services, Inc. |
| 891.0 (mkt.)<br>966.0 (bk.) | 160.9 (mkt.)<br>179.1 (bk.) | 69.1 (mkt.)<br>69.1 (bk.) | | 6/30/78 | Internal Admin. & Alliance Capital Management Corp. |
| 2,612.9 | | 126.5 | 2.1 | 6/30/78 | Internal Admin |
| 324 (bk.)<br>302 (mkt.) | 27<br>(bk. & mkt.) | 18<br>(bk. & mkt.) | 5 | 6/30/79 | Internal Admin., First Natl. Bank of Atlanta |
| 708 (bk.)<br>647 (mkt.) | 22<br>(bk. & mkt.) | 66 | 17 (bk.)<br>15 (mkt.) | 6/30/79 | Internal Admin., Citizens & Southern Natl. Bank |
| 341.1 (mkt.)<br>375.7 (bk.) | N/A | 50.3 (bk.) | | 8/31/78 | Internal Admin |
| 221.4 (bk.)<br>204.3 (mkt.) | | 110.2 (bk.)<br>110.1 (mkt.) | | 6/30/78 | Internal Admin |
| 586.2 | 2.2 | 101.5 | | 6/30/78 | Internal Admin./External Admin |
| 243.2 | | 168.0 | 1.5 | 6/30/78 | Centennial Capital Corp., Capital Suprs., Investment & Cap. Mgmt., George D. Bjurman and Assoc., Montag & Caldwell, Inc., Reimer & Koger Assoc., Inc. |
| 189.9 (bk.) | 52.7 | 83.2 | 7 | 3/31/79 | Todd Investment Advisors, Inc. |
| 203.3 | 32.1 | 108.5 | 37.8 | 7/31/79 | |
| 104.1 | 7.2 | 5.5 | 24.8 | 6/30/78 | Alliance Capital Management Corp., David L. Babson & Co., Inc., Massachusetts Financial Services, Inc.; Merchants National Bank of Bangor; Merrill Trust Co.; Morgan Guaranty Trust Co.; Putnam Advisory Co., Inc. |
| 15.1 | | 3.8 | 5 | 9/30/79 | Internal Admin |

| Name & Address of fund | Person to contact | Total assets (in millions) | Common stock (in millions) | Preferred stock (in millions) | U.S. Govt. securities (in mills) |
|---|---|---|---|---|---|
| **Michigan Legislative Retirement Fund**<br>**Dept. of Mgmt. & Budget**<br>P.O. Box 30026<br>Lansing, MI 48909 | Gerald H. Miller<br>Dir. Dept. of Mgmt. and Budget | 16.6 | 12.4 | | |
| **Michigan Municipal Employees Retirement System,**<br>Mason Bldg.<br>3rd Floor, East Wing<br>P.O. Box 30026<br>Lansing, MI 48913<br>517/373-9317 | Kenneth Recker<br>Finance Director | 287.7 | 51.2 | | 66.7 |
| **Michigan Probate Judges Retirement Fund**<br>**Dept. of Mgmt & Budget**<br>P.O. Box 30026<br>Lansing, MI 48909 | Gerald H. Miller<br>Director Dept of Mgmt. & Budget | 5.8 | .9 | | |
| **Michigan Public School Employees Chapter I Retirement Fund**<br>**Dept. of Mgmt. and Budget**<br>P.O. Box 30026<br>Lansing, MI 48909 | Gerald H. Miller<br>Director-Dept. of Mgmt. & Budget | 2,582.7 | 2,276.4 | | |
| **Michigan Public School Employees Chapter II Retirement Fund,**<br>**Dept. of Mgmt. & Budget**<br>P.O. Box 30026<br>Lansing, MI 48909 | Gerald H. Miller<br>Director-Dept. of Mgmt. & Budget | 382.4 | 363.7 | | |
| **Michigan State Employers Retirement Fund**<br>**Dept. of Mgmt. & Budget**<br>P.O. Box 30026<br>Lansing, MI 48909 | Gerald H. Miller<br>Dir.-Dept. of Mgmt. and Budget | 861.0 | 146.3 | | |
| **Michigan State Police Pension, Accident & Disability Fund**<br>**Dept. of Mgmt. & Budget**<br>P.O. Box 30026<br>Lansing, MI 48909 | Gerald H. Miller<br>Dir.-Dept of Mgmt. and Budget | 65.4 | 9.2 | | |
| **Public Employees Retirement Fund**<br>**Minn. State Board of Investment**<br>Room 105, MEA Bldg.<br>55 Sherburne Ave.<br>St. Paul, MN 55155<br>612/296-3328 | O. M. Ousdigian<br>Exec. Director | 484.1 | 263.5 | | 36.5 |
| **State Employees Retirement Fund**<br>**Minn. State Board of Investment**<br>Room 105, MEA Bldg.<br>55 Sherburne Ave.<br>St. Paul, MN 55155<br>612/296-3328 | Paul L. Groschen<br>Exec. Director | 253.0 | 136.6 | | 21.5 |
| **Teachers Retirement Fund**<br>**Minn. State Board of Investment**<br>Room 105, MEA Building,<br>55 Sherburne Ave.<br>St. Paul, MN 55155<br>612/296-3328 | Harvey W. Schmidt<br>Exec. Director | 522.8 | 274.6 | | 38.9 |
| **Public Employees Retirement System of Mississippi**<br>1704 Waltersillers State Office Bldg.<br>Jackson, Miss. 39201<br>601/354-6737 | Chas. D. Wilkinson<br>Investment Mgr. | 674.3 (mkt.) | | | 48.5 |
| **Missouri State Employees Retirement System**<br>900 Leslie Dr.<br>Jefferson City, MO 65101<br>314/751-2342 | Edwin M. Bade<br>Exec. Sec. | 196.8 (bk.) | 42.2 (bk.) | | 51.0 (bk.) |
| **Public Employees Retirement System Fund**<br>**Montana Board of Investments**<br>Capitol Building<br>Helena, MT 59601<br>406/449-2656 | James R. Howeth<br>Investment Officer | 186.4 | 24.9 | | 8.2 |
| **Teachers Retirement System Fund**<br>**Montana Board of Investments**<br>Capitol Building<br>Helena, MT 59[illegible]<br>406/449-2656 | James R. Howeth<br>Investment Officer | 152.9 | 26.0 | | 7.5 |
| **State of Nebraska Retirement Fund**<br>P.O. Box 9469[illegible]<br>State Office Bldg.<br>Lincoln, NB 685[illegible]9<br>402/471-2043 | Donald J. Mathes<br>State Investment Officer | 98.8 | 11.6 | | 40.8 |

| Corporate bonds (in millions) | Mortgages (in millions) | Cash and short-term securities (in millions) | Other (in millions) | Reporting date | Investment advisers |
|---|---|---|---|---|---|
| | | 4.0 | .3 | 9/30/78 | Internal Admin. |
| 94.9 | 8.0 | 66.9 | | 9/30/78 | Internal Admin. |
| 3.5 | | 1.4 | .1 | 9/30/79 | Internal Admin. |
| | | 329.0 | 31.0 | 9/30/78 | Internal Admin. |
| | | 14.7 | 6.9 | 9/30/78 | Internal Admin. |
| 592.8 | | 128.4 | 11.3 | 9/30/78 | Internal Admin. |
| 45.3 | | 11.4 | 1.1 | 9/30/78 | Internal Admin. |
| 164.4 | | 19.8 | | 6/30/78 | Internal Admin. |
| | | 16.1 | | 6/30/78 | Internal Admin. |
| 178.4 | | 31.0 | | 6/30/78 | Internal Admin. |
| 386.9 | 172.3 | 66.7 | | 6/30/78 | Internal Admin. |
| 79.2 (bk.) | 14.6 (bk.) | 9.9 (bk.) | | 6/30/78 | St. Louis Union Trust Co. & Research Mgmt. Assoc. |
| 121.7 | 29.2 | .9 | 1.5 | 6/30/78 | Internal Admin. |
| 89.7 | 28.1 | 1.5 | .2 | 6/30/78 | Internal Admin. |
| 46.1 | | | .4 | 6/30/78 | Internal Admin. |

| Name & Address of fund | Person to contact | Total assets (in millions) | Common stock (in millions) | Preferred stock (in millions) | U.S. Govt. securities (in mills) |
|---|---|---|---|---|---|
| **New Jersey Div. of Investment**<br>349 W. State St.<br>Trenton, NJ 08625<br>609/292-5106 | Roland M. Machold<br>Director | 5,992.3 (bk.)<br>5,418.9 (mkt.) | 97.2 (bk.)<br>85.6 (mkt.) | 6.6 (bk.)<br>4.8 (mkt.) | 367.5 (bk.)<br>356.8 (mkt.) |
| **Public Employees Retirement Assn. of New Mexico**<br>P.E.R.A. Bldg.<br>Santa Fe, NM 87503<br>505/827-2818 | Leonard Valdes<br>Exec. Secretary | 275.9 | 83.0 | | 100.0 |
| **N. Carolina Retirement Systems**<br>325 N. Salisbury St.<br>Raleigh, NC 27611<br>919/733-7373 | Christopher S. Moore, Dep. Treas. Dir., Investment & Banking Div. | 3,678.6 | 420.5 | | 603.1 |
| **Public Employees Retirement System of Ohio**<br>277 E. Town St.,<br>Columbus, OH 43215<br>614/466-5155 | J. Douglass Peter<br>Director | 4,438.7 | 1,181.5 | 6.2 | 163 |
| **Teachers Retirement System of Oklahoma**<br>State Capitol<br>Box 53524<br>Oklahoma City, OK 73152<br>405/521-2387 | Bill Ware<br>Exec. Secretary | 428.3 (mkt.)<br>392.9 (bk.) | 23.5 (mkt.)<br>23.5 (bk.) | | 73.6 (mkt.)<br>72.8 (bk.) |
| **Pennsylvania Mncpal. Employees Retirement Fund**<br>P.O. Box 1165<br>605 Executive House<br>101 S. Second St.<br>Harrisburg, PA 17108<br>717/783-8124 | Robert C. Rossman<br>Sec., Pa. Mcpl. Retirement Board | 34.6 (bk.)<br>31.6 (mkt.) | 6.5 (bk.)<br>6.6 (mkt.) | .05 (bk.)<br>.045 (mkt.) | |
| **Pennsylvania Public School Retirement System,**<br>301 Chestnut St.,<br>Harrisburg, PA 17101<br>717/787-8546 | M. Andrew Sheffler<br>Exec. Director | 4,096.5 | 385.1 | | |
| **Pennsylvania State Employees Retirement System**<br>204 Labor & Industry Bldg.<br>Harrisburg, PA 17120<br>717/787-6293 | Richard L. Witmer<br>Secretary | 2,496.8 | 433.1 (bk.) | | 176.8 |
| **S. Carolina Retirement System**<br>P.O. Box 11960<br>Capital Station<br>Columbia, SC 29211<br>803/758-2146 | Purvis W. Collins<br>Director | 1,375.3 (bk.) | | | 268.7 |
| **S. Dakota Retirement System**<br>216 E. Capitol<br>Pierre, SD 57501<br>605/773-3731 | Scott A. Bettin<br>Investment Analyst | 205.1 (bk.)<br>205.2 (mkt.) | 78.1 (bk.)<br>82.7 (mkt.) | | 79.7 (bk.)<br>75.5 (mkt.) |
| **Tennessee Consolidated Retirement System**<br>1329 Andrew Jackson<br>State Office Building<br>Nashville, TN 37219<br>615/741-7063 | Harlan Mathews<br>State Treasurer | 1,217.2* | 314.5 (bk.) | | 273.0 |
| **Teacher Retirement System of Texas**<br>1001 Trinity St.<br>Austin, TX 78701 | Leonard Prewitt<br>Exec. Secretary | 4,016.3 | 1,129.7 | | 649.1 |
| **Vermont State Retirement Fund Office of the State Treasurer**<br>State Admin. Bldg.<br>Montpelier, VT 05602<br>802/828-2305 | Ed C. Gallison<br>Dir. of Retirement Services | 75.7 | 14.9 (mkt.)<br>14.2 (bk.) | .2 (mkt.)<br>.2 (bk.) | 12.6 (mkt.)<br>13.1 (bk.) |
| **Virginia Supplemental Retirement System**<br>P.O. Box 6-C,<br>Richmond, VA 23214<br>804/786-8807 | Robert H. Daniel<br>Investment Officer | 1,425.1 (mkt.)<br>1,470.3 (bk.) | 401.8 (mkt.)<br>369.1 (bk.) | | 372.0 (mkt.)<br>383.6 (bk.) |
| **W.Va. Pub. Employees Retirement System**<br>Bldg. 6, Room 430,<br>Charleston, WV 25305<br>304/348-2031 | Lewis N. McManus<br>Exec. Secretary | 264.9 | | | 70.2 (par) |
| **Wisconsin Investment Board**<br>244 W. Washington Ave.<br>Madison, WI 53702<br>608/266-2381 | James M. LaFleur<br>Exec. Director | 1,[illegible].6 | | | 695.4 |

*Includes Net Unamortized Premium or Discount on bonds (16,055,218.17)

| Corporate bonds (in millions) | Mortgages (in millions) | Cash and short-term securities (in millions) | Other (in millions) | Reporting date | Investment advisers |
|---|---|---|---|---|---|
| 166.6 (bk.)<br>1,286.6 (mkt.) | 322.2 (bk.)<br>301.1 (mkt.) | 693.9 (bk.)<br>670.6 (mkt.) | 2,839 (bk.)<br>2,713.3 (mkt.) | 6/30/78 | Internal Admin. |
| 71.5 | 12.8 | 4.1 | 4.5 | 6/30/78 | Lionel D. Edie & Co. |
| 2,616.6 | | 38.4 | | 3/31/79 | Internal Admin., Alliance Capital Mgmt. Corp.; Thorndike, Doran, Paine & Lewis, Inc.; Duff & Phelps, Inc. |
| 2,766 | 44.4 | 203 | | 6/30/79 | Scudder & Stevens & Clark |
| 298.4 (mkt.)<br>263.4 (bk.) | | 32.7 (mkt.)<br>32.7 (bk.) | | 6/30/79 | Not Available |
| 28.0 (bk.)<br>24.9 (mkt.) | | | | 3/31/79 | Mellon Bank NA |
| 2,998.6 | 573.5 | | 139.3 | 6/30/78 | Mellon Bank NA |
| 1,590.0 (par) | 212.6 (par) | 84.3 | | 12/31/78 | Mellon Bank NA |
| 1,002.1 | | 28.8 | 75.7 | 6/30/78 | Internal Admin. |
| 7.3 (bk.)<br>7.0 (mkt.) | | 40.0 (bk.)<br>40.0 (mkt.) | | 6/30/79 | Internal Admin., Eagle Mgmt. & Trust |
| 440.1 | | 128.6 | 77.1 | 6/30/78 | Internal Admin. |
| 1,452.0 | 682.7 | 97.8 | 4.9 | 8/31/78 | Internal Admin., Duff & Phelps, Inc. |
| 25.9 (mkt.)<br>27.6 (bk.) | 4.2 (bk.) | 5.3 | 9.7 (mkt.)<br>9.7 (bk.) | 6/30/78 | Internal Admin. |
| 403.1 (mkt.)<br>469.4 (bk.) | | 160.9 (mkt.)<br>160.9 (bk.) | 87.3 (mkt.)<br>87.3 (bk.) | 6/30/79 | The Bank of NY; Boston Company Institutional Investors, Inc.; Putnam Advisory Co., Inc.; Mass. Financial Services Co. |
| 156.1 (par) | 33.3 (par) | 8.2 | .04 (par) | 6/30/78 | Internal Admin. |
| | | 600.3 | | 6/30/78 | Internal Admin. |

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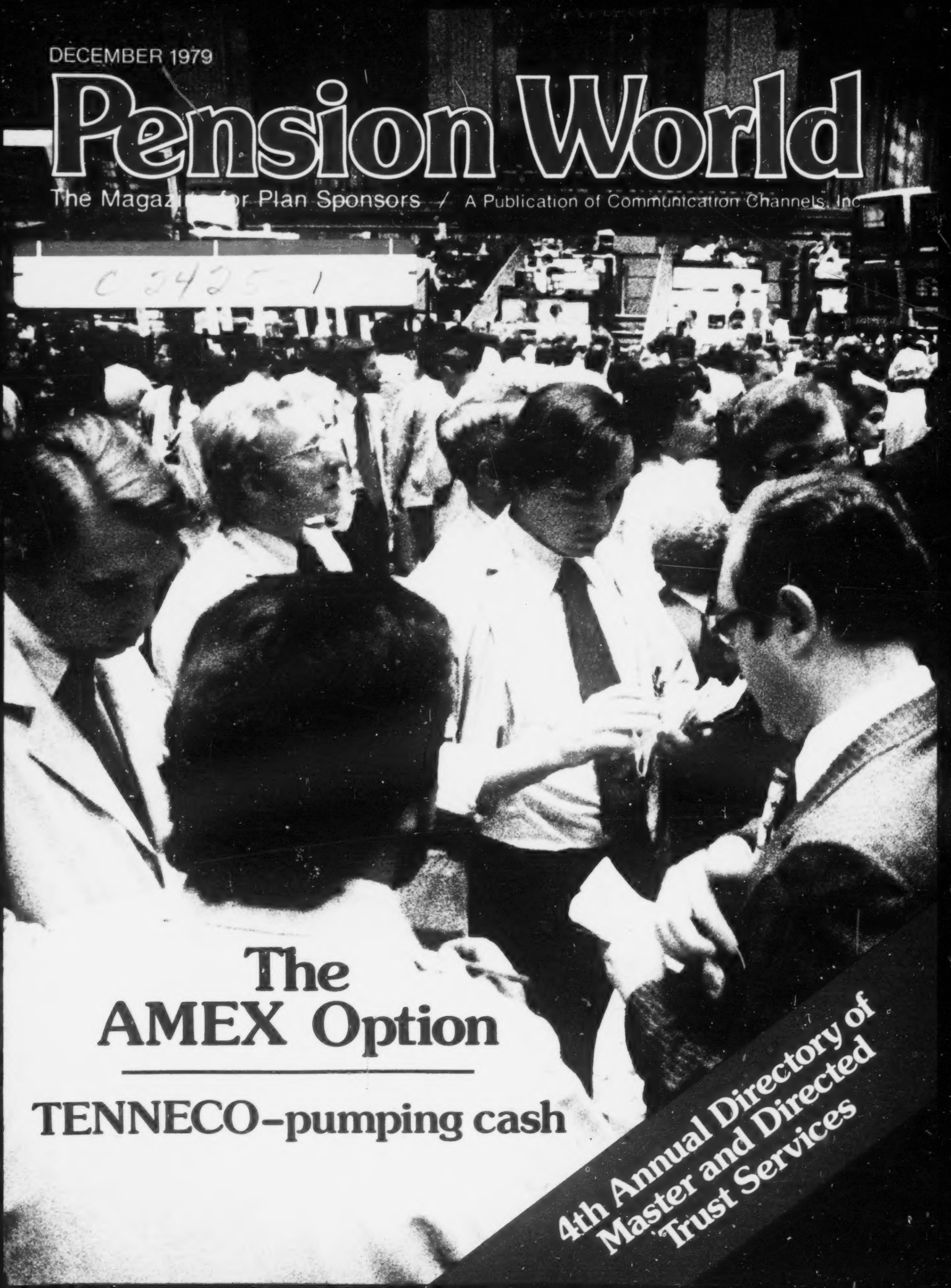

## The AMEX Option

## TENNECO–pumping cash

## 4th Annual Directory of Master and Directed Trust Services

December 1979

# Pension World

Volume 15, Number 12

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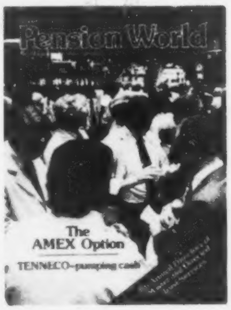

**Cover:** On the floor of the American Stock Exchange, options are becoming hot properties. Their value to pension funds is analyzed on page 16.

BPA

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# Fourth Annual Plan Sponsor's Directory of Master and Directed Trust Services

This fourth edition of *Pension World*'s master and directed trust services directory represents what we trust is a reasonably accurate and complete compendium of this large part of the pension fund market. We do acknowledge, however, that there are some banks who do not appear; we apologize for their omission and request that they write us so we can ensure their inclusion next year.

We also are aware that in any undertaking of this kind, some inaccuracies do creep in. The definition of "Master Trust" remains a point of disagreement among banks; thus some figures are not truly comparable to others.

For our purposes, we defined a master trust as an arrangement where plan assets are commingled — not merely an aggregation of multiple portfolios.

| Name and Address of Bank | Person to Contact | Number of Separate Clients | Number of Separate Plans | Directed Trust Assets (in Millions) | Custodial Assets (in Millions) | Master Trust Assets (in Millions) |
|---|---|---|---|---|---|---|
| **Bankers Trust Co.**<br>**280 Park Avenue**<br>**New York, NY 10017** | Jay B. Kane<br>V.P.<br>(212) 692-6952 | 100 | Approx.<br>1,000 | $1,000 | $50,000 | $12,500 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Market Inventory Fund, Performance Comparison, Consulting, Asset Allocation. | | | | | | |
| **Bank of America NT & SA**<br>**Box 37121**<br>**San Francisco, CA 94137** | William E. Goetze<br>G.V.P.<br>(415) 622-8097 | 1,800 | 2,400 | $7,200 | $600 | $1,700 |
| **Services Provided:** Performance Measurement, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund (capability), Market Inventory Fund (capability). | | | | | | |
| **The Bank of New York**<br>**52 William Street**<br>**New York, NY 10015** | Jon B. Victor<br>V.P.<br>(212) 530-1847 | 50 | 123 | $750 | $35,000 | $250 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Asset Allocation Model, Investment Strategy Overview. | | | | | | |
| **Bank of Oklahoma, N.A.**<br>**P.O. Box 2300**<br>**Tulsa, OK 74192** | James R. Dodd<br>V.P. & S.T.O.<br>(918) 588-6448 | 155 | 193 | $33.1 | $13.5 | 0 |
| **Services Provided:** Performance Measurement, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement. | | | | | | |
| **Boston Safe Deposit &**<br>**Trust Company**<br>**One Boston Place**<br>**Boston, MA 02106** | Ephron Catlin, III<br>V.P.<br>(617) 722-7601 | 90 | 146 | $300 | $100 | $800 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Asset Allocation Model, Manager Strategy Monitor, Strategized Performance Measurement, Portfolio Optimization Model, Equity Valuation Model, Specialized Screens, Quarterly Consulting at Client's Office. | | | | | | |
| **California First Bank**<br>**P.O. Box 109**<br>**San Diego, CA 92112** | Horace B. Benjamin<br>V.P.;<br>Charles F. Bevan<br>A.V.P.<br>(714) 294-4504 | 800 | 1,000 | $125 | $30 | $10 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement. | | | | | | |
| **Canada Permanent Trust Co.**<br>**320 Bay Street**<br>**Toronto, Ontario M5H 2P6**<br>**Canada** | Donald M. Lyons<br>A.V.P., Investment<br>Client Services<br>(416) 361-8273 | 280 | 400 | $500 | $150 | $40 |
| **Services Provided:** Peformance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, Benefit Disbursement. | | | | | | |
| **The Central Trust Co. N.A.**<br>**Fourth & Vine Streets**<br>**Cincinnati, OH 45202** | Richard H. Burgin<br>S.T.O. | 7 | | $62.7 | | |
| **Services Provided:** Performance Measurement, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, and Benefit Disbursement. | | | | | | |

| Total Directed Custodial Master Assets (in Millions) | Number of Portfolios Maintained | Average Number of Accounts per Account Supervisor | Average Number of Portfolios per Investment Mgr. Contact | Accounting System Utilized | Automatic Reinvestment of Cash | Short Term Instruments Used | Date Interest Allocated |
|---|---|---|---|---|---|---|---|
| $80,000 | Approx. 500 | 10 | 5 | Trade date (full accrual), Actual delivery date, Contractual settlement date. | Yes | Interim investment fund: Master notes, C.D.'s, Commercial paper Repurchase agreement | 1st of the month, computed daily. |
| **Fee Structure:** Based on asset value only. | | | | | | | |
| $9,500 | Over 3,000 | 3-150* | | Trade date (full accrual); Actual delivery date; Contractual settlement date<br>AS DESIRED BY CLIENT | Yes | Short Term Investment Fund; Master notes; CD's; T-Bills; Commercial paper; Repos | Short term-daily |
| **Fee Structure:** Based on asset value only.<br>*Based on complexity. | | | | | | | |
| $36,000 | 125 | 15 | 20 | Trade date, Actual Delivery date* | Yes | Master note. Short-term liquid asset fund | Payable date |
| **Fee Structure:** Based on asset value and based on individual services performed.<br>*Flexible system; reports generated on a trade date or delivery date, as required. | | | | | | | |
| $392 | 261 | 64 | 86 | Contractual settlement date | Yes | Master notes. Savings & CD's. Commercial paper. Treasury bills STIF | 2nd day of month, computed daily |
| **Fee Structure:** Based on asset value only.<br>*Total pension fund assets. | | | | | | | |
| $1,200 | 263 | 8 | 15 | Actual delivery date | Yes | Short-term Investment Fund (STIF) | Accrued daily |
| **Fee Structure:** Based on individual services performed. | | | | | | | |
| $165 | 17 | 200 | 25 | Actual delivery date | Yes | Short Term Investment Fund; Master notes | First of month; Calculated last week of month |
| **Fee Structure:** Based on asset value only, based on individual services performed, flat quote, and based on cost of asset if directed. | | | | | | | |
| $641.1 | 378 | 80 | N/A | Trade date effective 1/1/79 | Yes | Treasury bills; Government & Provincial guaranteed Approved list of Commercial & Acceptance paper | Coupon date segregated, month end for pooled accounts |
| **Fee Structure:** Based on individual services performed. | | | | | | | |
| $62.7 | 15 | 3 | N/A | Contractual settlement date | Yes | Master notes: CDs; T-bills Commercial paper; Pooled short term, Money funds | Computed daily; credited monthly |
| **Fee Structure:** Based on asset value only. | | | | | | | |

| Name and Address of Bank | Person to Contact | Number of Separate Clients | Number of Separate Plans | Directed Trust Assets (in Millions) | Custodial Assets (in Millions) | Master Trust Assets (in Millions) |
|---|---|---|---|---|---|---|
| **Chemical Bank**<br>**227 Park Avenue**<br>**New York, NY 10017** | Bartley J. Fleming, Jr.; S.T.R.<br>(212) 922-7755 | 150 | Over 400 | $1,000 | $200 | $3,200 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Market Inventory Fund. | | | | | | |
| **Citibank, N.A.**<br>**One Citicorp Center**<br>**New York, NY 10043** | Kenneth J. Hunt<br>V.P.<br>(212) 559-9895 | 110 | 300 | $2,125 | $5,937 | $1,353 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Market Inventory Fund, Global Custody. | | | | | | |
| **The Citizens & Southern National Bank**<br>**P.O. Box 4114**<br>**Atlanta, GA 30302** | Richard S. White, Jr.<br>S.V.P.<br>(404) 581-2906 | 17 | 54 | $28 | $3 | $102 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, and Full Plan Administration Service. | | | | | | |
| **Citytrust**<br>**961 Main Street**<br>**Bridgeport, CT 06602** | Peter Bowles<br>V.P. & T.O.<br>(203) 384-5243 | 300 | 361 | $14 | $6 | $14 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Portfolio Risk Analysis, SPD's, Master Plans, Government Reporting Form Assistance, Guaranteed Insurance Contracts. | | | | | | |
| **Chase Manhattan Bank**<br>**1211 Avenue of the Americas**<br>**New York, NY 10036** | Roger L. DuBois<br>S.V.P.<br>(212) 730-3002 | 390 | 900 | $3,000 | * | $5,200 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Market Inventory Fund, Income Projections. | | | | | | |
| **Cleveland Trust Company**<br>**900 Euclid Avenue**<br>**Clevelend, OH 44101** | Gary W. Queen, Sr., V.P.; Michael F. Zimmerlin, A.V.P.<br>(216) 687-5236 | 75 | 80 | $323 | $100 | $1,400 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, and Benefit Disbursement. | | | | | | |
| **Commerce Bank of Kansas City**<br>**10th & Walnut**<br>**P.O. Box 248**<br>**Kansas City, MO 64141** | George C. McCarten<br>V.P.<br>(816) 234-2570 | 218 | 249 | $218 | $22 | $18 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement. | | | | | | |

| Total Directed Custodial Master Assets (in Millions) | Number of Portfolios Maintained | Average Number of Accounts per Account Supervisor | Average Number of Portfolios per Investment Mgr. Contact | Accounting System Utilized | Automatic Reinvestment of Cash | Short Term Instruments Used | Date Interest Allocated |
|---|---|---|---|---|---|---|---|
| $2,850 | 260 | 18 | 60 | Trade date for reporting; Contractual Settlement date | Yes | Short term investment fund; Master notes | Payable date |
| **Fee Structure:** Based on asset value only. | | | | | | | |
| $6,100 | 250 | 10-30 | 28 | Trade date | Yes | Pooled short term fund, Master notes CD's, T-bills Commercial paper, Repurchase agreements | Daily on pooled fund; monthly on master notes |
| **Fee Structure:** Based on individual services performed. | | | | | | | |
| $133 | 24 | 6 | 7 | Trade date | Yes | Master notes; CD's; T-bills Commercial paper; Pooled short-term Money funds; Repo's | Computed daily; credited monthly |
| **Fee Structure:** Based on individual services performed. | | | | | | | |
| $115* | 270 | 55 | N/A | Trade date (full accural); Settlement date | Yes | Short term C&F; T-bills; T-notes; CD's; Repos; Savings acc'ts. Commercial paper | Payment date & upon redemption |
| **Fee Structure:** Based on asset value; individual services performed.<br>*Total assets of employee benefit department. | | | | | | | |
| $10,300** | 270 | 10-12 | 3 | Contractual settlement date | Yes | Master notes. Certificates of deposit. Treasury bills. Commercial paper. Pooled short-term investment funds | Daily |
| **Fee Structure:** Available upon request.<br>*Custodial assets not administered in employee trust services group.<br>**Total asset value includes discretionary assets of $2.1 billion. | | | | | | | |
| $1,470 | 85 | 7 | 25 | Actual delivery date | Where requested | Short term fund. Variable demand notes. CDs, T-bills Commercial paper, Reserve fund consisting of 1-3 year, Government & Agency issues valued twice a month | Pay date |
| **Fee Structure:** Available upon request. | | | | | | | |
| $370 | About 100 | 40-50 | 15-20 | Actual delivery date | No | Master notes, Liquid asset fund; Short term gov't securities fund, Open market purchases of CD's, Com'l paper & Gov't notes | When received |
| **Fee Structure:** Based on individual services performed. | | | | | | | |

| Name and Address of Bank | Person to Contact | Number of Separate Clients | Number of Separate Plans | Directed Trust Assets (in Millions) | Custodial Assets (in Millions) | Master Trust Assets (in Millions) |
|---|---|---|---|---|---|---|
| **Continental Illinois<br>National Bank & Trust Co.<br>231 South LaSalle Street<br>Chicago, IL 60693** | Anthony P. Wilson<br>V.P.<br>(312) 828-7007 | 106 | 330 | $900 | $1,540 | $1,450 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Market Inventory Fund, Cash Projection. | | | | | | |
| **Crocker National Bank<br>111 Sutter Street<br>San Francisco, CA 94104** | Stephen McDonald<br>S.V.P.<br>(415) 983-3133 | 9 | 42 | $963 | $3,252 | $1,101 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Full Range of Commingled Fixed Income and Equity Funds, Real Estate Mortgage and Equity Funds, Cash Management — STIF, Daily Investment of Cash, Master Notes. | | | | | | |
| **Fiduciary Trust Co. of<br>New York<br>2 World Trade Center<br>New York, NY 10048** | Thomas C. Borruso<br>V.P.<br>(212) 466-4100 | 26 | 91 | $31.4 | $219.8 | $234.1 |
| **Services Provided:** Performance Measurement, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Cash Management — Daily Investment of Cash. | | | | | | |
| **First & Merchants National<br>Bank<br>12th & Main Streets<br>Richmond, VA 23219** | George T. Jamerson<br>A.P.T.O.<br>(804) 788-2867 | 30 | 40 | N/A | $35 | 0 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement. | | | | | | |
| **First Kentucky Trust Co.<br>P.O. Box 36010<br>Louisville, KY 40232** | Stephen D. McCreary<br>V.P.<br>(502) 581-4492 | 22 | 40 | $135 | $10 | $350 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, ERISA Disclosure Assistance and Benefit Disbursement. | | | | | | |
| **The First National Bank<br>of Atlanta<br>P.O. Box 4148<br>Atlanta, GA 30302** | Fred R. Betts<br>G.V.P.<br>(404) 588-6817 | 21 | 24 | $11.5 | $91.2 | $66.9 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, and Benefit Disbursement. | | | | | | |
| **The First National Bank<br>of Boston<br>100 Federal Street<br>Boston, MA 02110** | Peter F. Tague, III<br>A.V.P.<br>(617) 434-4560 | 33 | 120 | $500 | $40 | $450 |
| **Services Provided:** Performance Measurement, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, On Line Portfolio Analysis. | | | | | | |

| Total Directed Custodial Master Assets (in Millions) | Number of Portfolios Maintained | Average Number of Accounts per Account Supervisor | Average Number of Portfolios per Investment Mgr. Contact | Accounting System Utilized | Automatic Reinvestment of Cash | Short Term Instruments Used | Date Interest Allocated |
|---|---|---|---|---|---|---|---|
| $3,890 | 210 | 10 | 20 | Trade date; Contractual settlement date | Yes | STIF, CD's, Treasuries, Master notes, Time deposits | 1st day of mo. & calculated daily with same day settlement; payable date |
| **Fee Structure:** Based on asset value and based on individual services performed. | | | | | | | |
| $3,252 | 827 | 30 | 10* | Contractual settlement date, trade date | Yes | STIF;<br>CD's, Commercial paper, Repurchase agreements, Bankers acceptances, Variable notes | Payable date |
| **Fee Structure:** Negotiated based on individual services.<br>*Master and directed trusts only. | | | | | | | |
| $485.3 | 162 | 27 | 10 | Trade date | Yes | Repurchase agreements, T-bills, Commercial paper, CD's | When received |
| **Fee Structure:** Based on individual services performed. | | | | | | | |
| $35 | 40 | 40 | 40 | Contractual settlement date | Yes | | 15th of each month |
| **Fee Structure:** Based on individual services performed. | | | | | | | |
| $495 | 37 | 10 to 15 | 2 | Trade date, Contractual settlement date | Yes | Own Collective Temporary Investment Fund — Master notes. Banker's acceptances. Certificates of deposit. Commercial paper, etc. | Accrued daily and posted first day of following month. |
| **Fee Structure:** Based on individual services performed, combined with asset value. | | | | | | | |
| $169.6 | 21 | 10 | 10 | Actual delivery date | Yes | Master notes, Short term fund | Monthly |
| **Fee Structure:** Based on asset value only. | | | | | | | |
| $26 | 75 | 6 | 20 | Contractual settlement date | Yes | Various | First |
| **Fee Structure:** Based on individual services performed. | | | | | | | |

| Name and Address of Bank | Person to Contact | Number of Separate Clients | Number of Separate Plans | Directed Trust Assets (in Millions) | Custodial Assets (in Millions) | Master Trust Assets (in Millions) |
|---|---|---|---|---|---|---|
| **The First National Bank of Chicago**<br>**One First National Plaza**<br>**Chicago, IL 60670** | James J. Smith, Jr.<br>V.P.<br>(312) 732-8489 | 65 | 333 | $1,266 | $1,265.4* | $1,871 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Master Trust Plan Recordkeeping, Real Estate Fund, Foreign Securities Fund, Small Bank Stock Fund. | | | | | | |
| **First National Bank of Kansas City**<br>**P.O. Box 38**<br>**Kansas City, MO 64183** | Michael J. Patton<br>T.O.<br>(816) 221-2800 | 180 | 200 | $55.2 | $97.7 | $69.9 |
| **Services Provided:** Performance Measurement, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, and Benefit Disbursement. | | | | | | |
| **First National Bank of Minneapolis**<br>**120 South Sixth Street**<br>**Minneapolis, MN 55402** | John C. Timmerman<br>V.P. Investment Services<br>Welles B. Eastman<br>V.P.<br>(612) 370-4207 | 90 | 100 | $200 | $50 | $300 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund. | | | | | | |
| **First Pennsylvania Bank**<br>**15th & Chestnut Streets**<br>**Philadelphia, PA 19101** | Sherrill E. Rowland<br>Senior Trust Marketing Officer<br>(215) 786-7080 | 352 | 622 | $315.6 | $3,333 | $374 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement. | | | | | | |
| **First Union National Bank of North Carolina**<br>**First Union Tower**<br>**Suite 1200**<br>**Charlotte, NC 28288** | C. Franklin Furr<br>V.P. & T.O.<br>(704) 374-6008 | 375 | 425 | $334.7 | $16.5 | $21.1 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, DTC Securities Clearing, GIC Selection Assistance, Asset Quality Screening Service. | | | | | | |
| **First Wisconsin National Bank of Wisconsin**<br>**P.O. Box 7900**<br>**Madison, WI 53707** | John C. Maynard<br>(608) 252-4154 | 225 | 335 | $22 | $768 | 0 |
| **Services Provided:** Portfolio Analysis, Portfolio Review, Participant Bookkeeping, ERISA Disclosure Assistance, and Benefit Disbursement. | | | | | | |
| **Harris Trust and Savings Bank**<br>**111 West Monroe Street**<br>**Chicago, IL 60690** | Richard C. Caldwell<br>V.P.<br>(312) 461-6942 | 136 | 407 | $250 | $2,000 | $3,300 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Market Inventory Fund, Pension Evaluation and Coordination Service. | | | | | | |

| Total Directed Custodial Master Assets (in Millions) | Number of Portfolios Maintained | Average *Number of* Accounts per Account Supervisor | Average *Number of* Portfolios per Investment Mgr. Contact | Accounting System Utilized | Automatic Reinvestment of Cash | Short Term Instruments Used | Date Interest Allocated |
|---|---|---|---|---|---|---|---|
| $4,403 | 163 | 16 | 35 | Trade date (posted on delivery) | Yes | Commingled money market fund, Repurchase agreements, Commercial paper, Master notes, CD's, T-bills | Commingled fund paid last business day of mo.; D&I credited on pay date |
| **Fee Structure:** Based on asset value, plus basic account charge.<br>*Included 25 employee benefit accounts. | | | | | | | |
| $222.7 | 200 | 70 | 150 | Contractual settlement date | Yes | Master notes, CD's, T-bills, Commercial paper | Payable date |
| **Fee Structure:** Based on asset value only. | | | | | | | |
| $1,050* | 100 | 15-40 | 15-40 | Contractual settlement date | Yes | Master notes; CD's; T-bills; Commercial paper; Pooled short term money funds | Payable date |
| **Fee Structure:** Based on asset value only.<br>*Total assets of pension and other funds. | | | | | | | |
| $1,151* | 439 | 62 | 12 | Trade date (full accrual); Actual delivery date; Contractual settlement date | Yes | Repurchase aggreements; Commercial paper; Treasury obligations; Certificates of deposit. Master notes. Pooled short-term fund | Payable date varies according to instrument used. |
| **Fee Structure:** Based on individual services performed.<br>*Total assets of pension and profit-sharing department. | | | | | | | |
| $1,419.6* | 317 | 112 | 317 | Contractual settlement date | Yes | T-bills, Repurchase agreements, Individual commercial paper, 4 Master notes, Internal commingled money market fund, 2 external money market funds. | Month end or withdrawal date |
| **Fee Structure:** Based on individual services performed.<br>*Safekeeping assets and discretionary funds. | | | | | | | |
| $1,100* | 74 | 35 | 40 | Contractual settlement date | No | Money market fund. Master notes | Various |
| **Fee Structure:** Based on individual services performed and Flat Quote.<br>*Includes management asset value. | | | | | | | |
| $5,550* | 278 | 23 | 70 | Contractual settlement date | Yes | Master notes; CD's; T-bills, Commercial paper; Pooled short-term money funds | Computed daily; credited monthly |
| **Fee Structure:** Based on individual services performed.<br>*Total funds under supervision. | | | | | | | |

<table>
<tr><th>Name and Address of Bank</th><th>Person to Contact</th><th>Number of Separate Clients</th><th>Number of Separate Plans</th><th>Directed Trust Assets (in Millions)</th><th>Custodial Assets (in Millions)</th><th>Master Trust Assets (in Millions)</th></tr>
<tr><td><b>Irving Trust Co.</b><br><b>One Wall Street</b><br><b>New York, NY 10015</b></td><td>Gary L. Davenport<br>V.P.<br>(212) 487-3896</td><td>74</td><td>95</td><td>$2,730</td><td>$190</td><td>$1,055</td></tr>
<tr><td colspan="7"><b>Services Provided:</b> Performance Measurement, Portfolio Analysis, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Market Inventory Fund, Options, Securities Lending (Public funds).</td></tr>
<tr><td><b>Long Island Trust Co.</b><br><b>82 Seventh Street</b><br><b>Garden City, NY 11530</b></td><td>James D. Weeden<br>V.P. & T.O.<br>(516) 294-2521</td><td>68</td><td>81</td><td></td><td></td><td>$205</td></tr>
<tr><td colspan="7"><b>Services Provided:</b> Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement.</td></tr>
<tr><td><b>Manufacturers and Traders</b><br><b>Trust Company</b><br><b>One M & T Plaza</b><br><b>Buffalo, NY 14203</b></td><td>James A.<br>Cammarata<br>E.B.O.<br>(716) 842-5533</td><td>200</td><td>200</td><td>$75</td><td>$15</td><td>$20</td></tr>
<tr><td colspan="7"><b>Services Provided:</b> Performance Measurement, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Monitoring Investment Managers.</td></tr>
<tr><td><b>Manufacturers Hanover</b><br><b>Trust Company</b><br><b>600 Fifth Avenue</b><br><b>New York, NY 10020</b></td><td>John A. Spiezia<br>V.P.<br>(212) 957-1842</td><td>72</td><td>332</td><td>$700</td><td>N/A</td><td>$3,779</td></tr>
<tr><td colspan="7"><b>Services Provided:</b> Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure, Benefit Disbursement, Index Fund, and Market Inventory Fund.</td></tr>
<tr><td><b>Manufacturers National</b><br><b>Bank of Detroit</b><br><b>Manufacturers Bank Tower</b><br><b>Renaissance Center</b><br><b>Detroit, MI 48243</b></td><td>Robert R.<br>Schoonbeck<br>V.P. & S.T.O.<br>(313) 222-4471</td><td>17</td><td>62</td><td>$500</td><td>$400</td><td>$6,200</td></tr>
<tr><td colspan="7"><b>Services Provided:</b> Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Market Inventory Fund, and Plan Administrative Services.</td></tr>
<tr><td><b>Marshall & Ilsley Bank</b><br><b>770 N. Water Street</b><br><b>Milwaukee, WI 53202</b></td><td>Morry L. Birnbaum<br>V.P.<br>(414) 765-8187</td><td>75</td><td>125</td><td>$200</td><td>$580</td><td>$175</td></tr>
<tr><td colspan="7"><b>Services Provided:</b> Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement.</td></tr>
<tr><td><b>Mellon Bank, N.A.</b><br><b>Mellon Square</b><br><b>Pittsburgh, PA 15230</b></td><td>John R. Gepfert<br>V.P.<br>(412) 232-6861</td><td>16</td><td>374</td><td>$4,188</td><td></td><td>$902</td></tr>
<tr><td colspan="7"><b>Services Provided:</b> Performance Measurement, Portfolio Analysis, Portfolio Review, ERISA Disclosure Assistance, Benefit Disbursement, Developing Cross-trading Capabilities within Larger Master Trusts.</td></tr>
</table>

| Total Directed Custodial Master Assets (in Millions) | Number of Portfolios Maintained | Average Number of Accounts per Account Supervisor | Average Number of Portfolios per Investment Mgr. Contact | Accounting System Utilized | Automatic Reinvestment of Cash | Short Term Instruments Used | Date Interest Allocated |
|---|---|---|---|---|---|---|---|
| $3,975 | 166 | 28 | 11 | Contractual settlement date | Yes | Master notes, CD's, T-bills, Commercial paper, Pooled short term money market instrument fund | Monthly |
| **Fee Structure:** Based on individual services performed. | | | | | | | |
| | 102 | | | Trade date | Yes | Master notes, Commercial paper, Certificates of deposit, U.S. treasury bills | |
| **Fee Structure:** Based on individual services performed. | | | | | | | |
| $150* | 128 | 128 | 128 | Trade date | Yes | Master notes; CD's; T-Bills; Commercial paper; Short-term U.S. gov't securities fund | 1st day of following month |
| **Fee Structure:** Based on individual services performed.<br>*Includes discretionary funds. | | | | | | | |
| $4,479 | 126 | 26 | 13 | Trade date, Actual delivery date, Contractual settlement date | Yes | MHt Co Short Term-Reserve fund. Commercial papers (A1/P1 rated). Master notes. Certificates of deposit | Payable date |
| **Fee Structure:** Based on asset value only. | | | | | | | |
| $5,500 | 150 | 5 | 25 | Trade date, Contractual settlement date at plan sponsor's election | Yes | Short term fund. Master notes. CD's. Commercial paper. T-bills, Repos | 2nd business day |
| **Fee Structure:** Flat Quote. | | | | | | | |
| $1,500 | 500 | 75 | 10 | Contractual settlement date | Yes | Treasury bills. Commercial paper. Master notes. Short term invest. fund | Payable date |
| **Fee Structure:** Based on asset value only. | | | | | | | |
| $6,088 | 145 | N/A | N/A | Option of client | Yes | Employee benefit temporary investment fund, also Discount Notes, Demand notes, Repurchase Agreements and Commercial paper | Monthly |
| **Fee Structure:** Based on flat quote and individual services performed. | | | | | | | |

| Name and Address of Bank | Person to Contact | Number of Separate Clients | Number of Separate Plans | Directed Trust Assets (in Millions) | Custodial Assets (in Millions) | Master Trust Assets (in Millions) |
|---|---|---|---|---|---|---|
| **Mercantile-Safe Deposit & Trust Company**<br>**2 Hopkins Plaza**<br>**P.O. Box 2257**<br>**Baltimore, MD 21203** | George P. Govatos<br>V.P.<br>(301) 237-5619 | 288 | 496 | $284.1 | $1,812.3 | $46.2 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Asset Allocation Analysis. | | | | | | |
| **Merchants National Bank of Manchester**<br>**One Hampshire Plaza**<br>**Manchester, NH 03101** | James E. Conroy<br>V.P. & T.O.<br>(603) 668-5000 | 54 | 54 | N/A | N/A | N/A |
| **Services Provided:** Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Options Fund. | | | | | | |
| **Michigan National Bank**<br>**77 Monroe NW**<br>**Grand Rapids, MI 49501** | Robert E. Whitelaw<br>V.P.<br>(616) 451-7816 | 550 | 686 | $165.5 | $42.5 | $30 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, and Index Fund. | | | | | | |
| **Montreal Trust Company**<br>**Head Office Pension Services**<br>**15 King Street West**<br>**Toronto, Ont. M5H 1B4** | Wm. J. Henderson<br>A.V.P.<br>(416) 362-6363 | 22 | 135 | $1,971 | $3,256 | $785.5 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, Canadian Regulatory Reporting, Benefit Disbursement, Index Fund. | | | | | | |
| **National Bank of Detroit**<br>**P.O. Box 222-A**<br>**Detroit, MI 48232** | Kenneth C. Oswald<br>V.P.<br>(313) 225-2770 | 12 | 90 | $439 | $439 | $1,655 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Market Inventory Fund, Options, Cash Management. | | | | | | |
| **National Trust Co., Ltd.**<br>**21 King St. East**<br>**Toronto, Ont. M5C 1B3** | D. D. Landreville<br>Mgr., E.B.D.<br>(416) 364-9141 | 17 | 80 | $950 | $50 | $1,200 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, Benefit Disbursement, Index Fund. | | | | | | |
| **The Northern Trust Co.**<br>**50 S. LaSalle St.**<br>**Chicago, IL 60675** | Thomas H. Kalen<br>V.P.<br>(312) 630-6000 | 88 | 525 | $847.1 | $16 | $7,368.9 |
| **Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Market Inventory Fund, Options. | | | | | | |

| Total Directed Custodial Master Assets (in Millions) | Number of Portfolios Maintained | Average Number of Accounts per Account Supervisor | Average Number of Portfolios per Investment Mgr. Contact | Accounting System Utilized | Automatic Reinvestment of Cash | Short Term Instruments Used | Date Interest Allocated |
|---|---|---|---|---|---|---|---|
| $2,404.2* | 44 | 90 | 7 | Contractual settlement date | Yes | Master Notes, Commingled short-term fund, Money funds | Pay date |

**Fee Structure:** Based on asset value; plus income; plus individual services performed.
*Total institutional trust assets.

| Total Directed Custodial Master Assets (in Millions) | Number of Portfolios Maintained | Average Number of Accounts per Account Supervisor | Average Number of Portfolios per Investment Mgr. Contact | Accounting System Utilized | Automatic Reinvestment of Cash | Short Term Instruments Used | Date Interest Allocated |
|---|---|---|---|---|---|---|---|
| $20 | 54 | 27 | 27 | Trade date | Yes | Federated Master Trust, US Short Term Government, Money Market Management, Inc. | Daily |

**Fee Structure:** Based on individual services performed.

| Total Directed Custodial Master Assets (in Millions) | Number of Portfolios Maintained | Average Number of Accounts per Account Supervisor | Average Number of Portfolios per Investment Mgr. Contact | Accounting System Utilized | Automatic Reinvestment of Cash | Short Term Instruments Used | Date Interest Allocated |
|---|---|---|---|---|---|---|---|
| $170 |  | 100 | 100 | Trade date | Yes | Commercial paper, Treasury bills, Savings accounts, Certificates of deposit |  |

**Fee Structure:** Based on individual services performed.

| Total Directed Custodial Master Assets (in Millions) | Number of Portfolios Maintained | Average Number of Accounts per Account Supervisor | Average Number of Portfolios per Investment Mgr. Contact | Accounting System Utilized | Automatic Reinvestment of Cash | Short Term Instruments Used | Date Interest Allocated |
|---|---|---|---|---|---|---|---|
| $3,256 | 31 | 45-50 | 10-15 | Contractual settlement date | Yes | Interest paid on uninvested cash balances, Federal/Provincial treasury bills, Commercial paper, Bank and trust co. deposits | Calculated daily, credited 10th of month. |

**Fee Structure:** Part based on asset value plus part based on individual services performed.
*Directed trusts include master trust assets.

| Total Directed Custodial Master Assets (in Millions) | Number of Portfolios Maintained | Average Number of Accounts per Account Supervisor | Average Number of Portfolios per Investment Mgr. Contact | Accounting System Utilized | Automatic Reinvestment of Cash | Short Term Instruments Used | Date Interest Allocated |
|---|---|---|---|---|---|---|---|
| $2,194 | 50 | 11 | 12 | Purchases: Actual delivery date; Sales: Contractual settlement date | Yes | Short Term Investment Fund | Computed daily, credited monthly |

**Fee Structure:** Based on asset value and individual services performed.
*Consider both the same.

| Total Directed Custodial Master Assets (in Millions) | Number of Portfolios Maintained | Average Number of Accounts per Account Supervisor | Average Number of Portfolios per Investment Mgr. Contact | Accounting System Utilized | Automatic Reinvestment of Cash | Short Term Instruments Used | Date Interest Allocated |
|---|---|---|---|---|---|---|---|
| $2,200 | 30 | 10 | 12-15 | Contractual settlement date | No | Interest bearing notes, Banker discount notes, Commercial notes, Treasury bills; Bank deposits | At maturity on investments Bank interest semiannually |

**Fee Structure:** Based on asset value; based on individual services performed.

| Total Directed Custodial Master Assets (in Millions) | Number of Portfolios Maintained | Average Number of Accounts per Account Supervisor | Average Number of Portfolios per Investment Mgr. Contact | Accounting System Utilized | Automatic Reinvestment of Cash | Short Term Instruments Used | Date Interest Allocated |
|---|---|---|---|---|---|---|---|
| $8,232 | 403 | 7* | 5** | Actual delivery date, Contractual settlement date | Yes | Commercial paper rated A1 or P1, CD's, US treasury bills, Master notes, and Bankers acceptances | 3rd business day after month end |

**Fee Structure:** Based on asset value only.
*Master Trusts.
**With support staff of 25.

<table>
<tr><th>Name and Address of Bank</th><th>Person to Contact</th><th>Number of Separate Clients</th><th>Number of Separate Plans</th><th>Directed Trust Assets (in Millions)</th><th>Custodial Assets (in Millions)</th><th>Master Trust Assets (in Millions)</th></tr>
<tr><td><b>Pacific Natl. Bank of Washington<br>1215-4th Ave.<br>Seattle, WA 98155</b></td><td>John P. Patterson<br>V.P. & T.O.<br>(206) 292-3530</td><td>140</td><td>150</td><td>$20</td><td>$20</td><td>$50</td></tr>
<tr><td colspan="7"><b>Services Provided:</b> Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Will Sub-contract R & D reports, Variable Form Prototype Plans.</td></tr>
<tr><td><b>Republic National Bank of Dallas<br>P.O. Box 241<br>Dallas, TX 75221</b></td><td>W. Humphrey Bogart, Sr. V.P. & T.O.<br>David J. Pittman<br>V.P. & T.O.<br>(214) 653-6506</td><td>79</td><td>90</td><td>$369.2</td><td>$394.8</td><td>$1,137.5</td></tr>
<tr><td colspan="7"><b>Services Provided:</b> Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement.</td></tr>
<tr><td><b>Royal Trust Corp. of Canada<br>P.O. Box 7500<br>Station ‘A’<br>Toronto-Dominion Centre<br>Toronto, Ont. M5W 1P9</b></td><td>M. Fraser Blakely<br>A.V.P.<br>(416) 867-2422</td><td>1,881</td><td>N/A</td><td>$2,802</td><td>N/A</td><td>$1,753</td></tr>
<tr><td colspan="7"><b>Services Provided:</b> Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, Benefit Disbursement, Government Reporting.</td></tr>
<tr><td><b>State Street Bank & Trust Company<br>225 Franklin Street<br>Boston, MA 02101</b></td><td>Ronald A. Golz<br>S.V.P.<br>Alexander A. Kondracki<br>V.P.<br>(617) 786-6350 & 786-6353</td><td>125</td><td>100+</td><td>$2,000</td><td>$20,000</td><td>$6,000</td></tr>
<tr><td colspan="7"><b>Services Provided:</b> Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Market Inventory Fund.</td></tr>
<tr><td><b>Texas Commerce Bank<br>712 Main Street<br>Houston, TX 77001</b></td><td>John W. Keiner<br>S.V.P.<br>(713) 236-4444</td><td>290</td><td>400</td><td>$370</td><td>$1,370</td><td>$520</td></tr>
<tr><td colspan="7"><b>Services Provided:</b> Performance Measurement, Portfolio Analysis, Portfolio Review. Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement.</td></tr>
<tr><td><b>United States Trust Co.<br>45 Wall Street<br>New York, NY 10005</b></td><td>Richard R. Smith<br>V.P.<br>(212) 425-4500</td><td>57</td><td>143</td><td>$2,500</td><td>$13,000</td><td>$1,100</td></tr>
<tr><td colspan="7"><b>Services Provided:</b> Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, Market Inventory Fund, and Asset Allocation.</td></tr>
<tr><td><b>Wachovia Bank and Trust Company, N.A.<br>P.O. Box 3099<br>Winston-Salem, NC 27102</b></td><td>Jane Fisher<br>A.V.P.<br>(919) 748-6348</td><td>35</td><td>210</td><td>$300</td><td>$8</td><td>$2,800</td></tr>
<tr><td colspan="7"><b>Services Provided:</b> Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, Benefit Disbursement, Index Fund, and Operating Manual, and Foreign Custodial Service.</td></tr>
</table>

| Total Directed Custodial Master Assets (in Millions) | Number of Portfolios Maintained | Average Number of Accounts per Account Supervisor | Average Number of Portfolios per Investment Mgr. Contact | Accounting System Utilized | Automatic Reinvestment of Cash | Short Term Instruments Used | Date Interest Allocated |
|---|---|---|---|---|---|---|---|
| $135* | 144 | 50 | 100 | Contractual settlement date | Yes | Master notes, Dealer paper (no pool) | Date payable (not received date) |
| **Fee Structure:** Based on individual services performed.<br>*Discretionary funds included. | | | | | | | |
| $1,901.5 | 171 | Varies in accordance with market value | Average 12 clients/ 14 accounts | Contractual settlement date | Yes | Master notes, T-bills, Commercial paper, Pooled short term money funds, Certificates of deposit | Payable date |
| **Fee Structure:** Based on individual services performed. | | | | | | | |
| $764 | 200[1] | 8 | 10 | Actual delivery date | Yes | Company guaranteed account CD's, T-bills, Commercial paper | Varies depending on the security |
| **Fee Structure:** Based on asset value and on individual services performed.<br>[1] individually managed only | | | | | | | |
| $8,000 | 200 | 5 | 2 | Trade date (full accrual) | Yes | STIF | Varies according to instrument used |
| **Fee Structure:** Based on individual services performed. | | | | | | | |
| $2,110 | 40 | 30 | 15 | Actual delivery date | Yes | Common trust fund, Variable demand notes, Commercial, paper, Treas. bill, Certificate of Dep. Banker's Acceptances, Savings Accts. | Calculated daily, credited 5th day of month |
| **Fee Structure:** Based on asset value or individual services performed.<br>*Includes managed accounts. | | | | | | | |
| $16,600 | 115 | 6 | 20 | Actual delivery date | Yes | STIF, Master notes | Payable date |
| **Fee Structure:** Flat Quote. | | | | | | | |
| $3,100 | 120 | 4-5 | 20 | Contractual settlement date | Yes | Pooled short term money fund | Payable date |
| **Fee Structure:** Based on individual services performed. | | | | | | | |

| Name and Address of Bank | Person to Contact | Number of Separate Clients | Number of Separate Plans | Directed Trust Assets (in Millions) | Custodial Assets (in Millions) | Master Trust Assets (in Millions) |
|---|---|---|---|---|---|---|
| **Wells Fargo Bank**<br>**475 Sansome Street**<br>**P.O. Box 44002**<br>**San Francisco, CA 94402** | Roberta Lyon<br>V.P.<br>(415) 396-5561 | 52 | 150 | N/A | N/A | $2,500 |

**Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, Asset Allocation, Multiple Manager Evaluation, Performance Evaluation, Portfolio Structuring, Risk Measurement & Control, ERISA Disclosure Assistance, Benefit Disbursement, Index Funds (S&P 500; Extended Equity, Fixed), Yield Tilt Market Fund, Market Inventory Fund, Other: International Market Fund; Real Estate Equity Fund; Value Added Equity; and Fixed Management.

| | | | | | | |
|---|---|---|---|---|---|---|
| **Wilmington Trust Co.**<br>**10th & Market Streets**<br>**Wilmington, DE 19899** | Robert B. Landon<br>V.P.<br>(302) 428-7317 | 53 | 173 | $3,693 | $96 | $104 |

**Services Provided:** Performance Measurement, Portfolio Analysis, Portfolio Review, Participant Recordkeeping, ERISA Disclosure Assistance, and Benefit Disbursement.

| Total Directed Custodial Master Assets (in Millions) | Number of Portfolios Maintained | Average Number of Accounts per Account Supervisor | Average Number of Portfolios per Investment Mgr. Contact | Accounting System Utilized | Automatic Reinvestment of Cash | Short Term Instruments Used | Date Interest Allocated |
|---|---|---|---|---|---|---|---|
| $2,500 | 150 | 10-20 | 10-20 | Contractual settlement date, trade date | Yes | Automated Daily computerized transfer to STIF; Master notes; CD's; T-bills; Direct placement commercial paper | Payable date |
| **Fee Structure:** Based on individual services performed. | | | | | | | |
| $3,895 | 142 | 15 | 20 | Contractual settlement date | Yes | Master Notes, C.D.'s, T-bills, Commercial paper, Pooled short term money funds, Repos and others upon request | At date payable |
| **Fee Structure:** Combination of asset value, individual services performed, and flat quote. | | | | | | | |

# NOTE

ONLY THE FOLLOWING PAGES OF THIS PUBLICATION

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Cover 1, p. 2,

53-63.

MAY 1980

# Pension World

The Magazine for Plan Sponsors / A Publication of Communication Channels, Inc.

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WASHINGTON DC 20014

## Wilson Foods packs meaty plan for employees

## Real estate: a comparative discussion

May 1980

# Pension World

The Magazine for Plan Sponsors / *A Publication of Communication Channels, Inc.*

Volume 16, Number 5

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**Cover:** Wilson Foods assessed its employee benefits program and decided to redesign the whole plan. How they did it begins on page 18.

BPA

Pension World is published monthly by Communication Channels, Inc., Joseph Shore, President; B.J. Kotsher, Executive Vice President, Betty Dornbush, Treasurer. Editorial and advertising offices at 6285 Barfield Road, Atlanta, GA 30328. Telephone (404) 256-9800. Pension World is a registered trademark of Communication Channels, Inc. © 1980 by Communication Channels, Inc. Controlled circulation postage paid at Shepherdsville, KY (USPS 502-110) and Atlanta, GA (USPS 410-030). Subscription rates: U.S.A., 1 year, $34; 2 years, $59; Canada and Mexico, 1 year, $36; Foreign, 1 year, $42. Single copies, $3.00. The opinions expressed by authors and contributors to Pension World are not necessarily those of the editors or publisher. Articles appearing in Pension World may not be reproduced in whole or in part without the express permission of the publisher. Microfilm copies of Pension World are available from University Microfilms, 300 North Zeeb Road, Ann Arbor, MI 48106. Postmaster: Please send form 3579 to Circulation Department, Pension World, 6285 Barfield Road, Atlanta, GA 30328.

# 9th annual survey of bank pooled pension fund accounts

Looking at the 1980 bank pooled pension fund statistics, one continues to note the reduction in the percentage of the amount invested in common stock. In our sampling of 1978, 85 percent of the funds were in common stock; in 1979, the percentage dropped to 49 percent; this year, our answers show only 39.7 percent of the funds are in common stock.

However, an increase of stock holdings may be on the way. When asked, "Do you expect to increase or decrease stock holdings in 1980?" sixty-three percent of those replying said they intended to increase stockholdings this year.

The next largest asset listed for bank pooled pension funds is cash, and it trails stocks only slightly, with 31.5 percent. Corporate bonds hold 21.3 percent of the assets, while 1.6 percent of the assets are in municipal bonds.

In the surveys of the past two years, the drop-outs have outnumbered the drop-ins, three to one in 1978 and six to one in 1979. This year's survey shows a real switch: drop-ins outnumber the drop-outs, 182 to 107. This seems to reflect a wider range of diversity among the stock assets. This is verified, perhaps, by the fact that in 1978, 776 different stock issues were listed in the survey; in 1979, only 549 stocks were listed; in this year's survey, stock assets are spread among 883 companies.

In the favorite 50, IBM continues to be the "sweetheart," with 86.7 percent of the respondents listing it among their holdings. Except for this number one spot, there is considerable change in the favorites listing.

The most dramatic upward movement is shown by energy-related stocks. Atlantic Richfield, number nine in 1979's survey, claims the number two spot in 1980. Schlumberger, Ltd., jumped all the way from 19 to number five. Standard Oil of Indiana moved from number 21 in '79 to number eight this year, and Standard Oil of California advanced from number 33 to number 12.

Advancement of energy-related stocks will surprise no one.

Other changes in the favorite 50: twenty-one new favorites are shown this year, compared to 13 new ones in 1979 and only six in 1978. That means almost 50 percent of the favorites of 1980 were not in the top 50 in 1979 and, conversely, that almost 50 percent of last year's favorites have dropped off the favorite 50 listing.

Ninety-one percent of the respondents to the 1980 survey report that the total funds in pooled accounts are up from last year, with an average increase of 23 percent. This increase in funds may be due to the performance record of pooled funds.

According to statistics published by Computer Directions Advisors, Inc., bank pooled common stock funds outperformed the S&P 500 stock index for the years ending in December, 1977, and in December, 1978. The pooled accounts continued to perform well over the past year. According to the December, 1979, report on "Bank Pooled Funds," published by CDA, the S&P 500 was up 18.5 for the year ending December 31, 1979, while the bank pooled common stocks showed a gain of 20.3 for the same period.

# What stocks they hold

| Stock | % of Respondents Holding | Number of Shares Held |
|---|---|---|
| Abbott Labs | 18.5 | 100,600 |
| ACF Industries, Inc. | 1.9 | 100 |
| Acme Cleveland | 1.9 | 22,300 |
| ADAC Labs | 1.9 | 39,500 |
| Aetna Life & Insurance | 16.7 | 186,700 |
| Ahmanson (H. F.) & Co. | 3.7 | 30,200 |
| Airborne Freight Co. | 1.9 | 13,700 |
| Air Products & Chemicals | 9.3 | 344,220 |
| Alaska Interstate Co. | 1.9 | 45,000 |
| Albany Int'l. Corp. | 1.9 | 56,400 |
| Alberta Gas Trunkline Corp. | 1.9 | 70,000 |
| Alcan Aluminum | 20.4 | 11,000 |
| Alco Standard Co. | 1.9 | 5,000 |
| Alexander & Alexander Services | 5.6 | 67,000 |
| Alexander & Baldwin | 1.9 | 66,500 |
| Allegheny Ludlum Industries | 1.9 | 15,800 |
| Allegheny Power System, Inc. | 1.9 | 29,000 |
| Allied Chemical Corp. | 7.4 | 34,000 |
| Allied Stores Corp. | 1.9 | 200 |
| Allis-Chalmers Corp. | 5.6 | 4,600 |
| Aluminum Co. of America | 9.3 | 18,200 |
| Amax, Inc. | 7.4 | 27,735 |
| Amdahl Corp. | 1.9 | 50,000 |
| Amerada Hess Corp. | 5.6 | 41,100 |
| American Airlines | 5.6 | 278,100 |
| American Brands | 5.6 | 2,300 |
| American Broadcasting Co. | 14.8 | 132,600 |
| American Can | 1.9 | 200 |
| American Cyanamid Co. | 3.7 | 179,761 |
| American Electric Power Co. | 1.9 | 1,200 |
| American Express | 14.8 | 313,718 |
| American General Insurance | 1.9 | 300 |
| American Greetings Corp. | 3.7 | 105,000 |
| American Home Products | 29.6 | 227,650 |
| American Hospital Supply | 7.4 | 70,400 |
| American Int'l. Group, Inc. | 5.6 | 54,000 |
| American Medical Int'l. Inc. | 7.4 | 49,625 |
| American Motors Corp. | 1.9 | 300 |
| American National Financing Corp. | 3.7 | 75,000 |
| American National Resources Co. | 9.3 | 51,700 |
| American Quasar Pet. Co. | 1.9 | 87,000 |
| American Resources Man. Corp. | 5.6 | 66,000 |
| American Standard, Inc. | 7.4 | 58,200 |
| American Stores Co. | 1.9 | 69 |
| American Telephone & Telegraph | 50. | 468,105 |
| Ametek, Inc. | 1.9 | 27,600 |
| AMF, Inc. | 1.9 | 200 |
| AM International, Inc. | 3.7 | 45,000 |
| AMP, Inc. | 7.4 | 24,600 |
| Ampex Corp. | 1.9 | 14,400 |
| Amstar Corp. | 1.9 | 100 |
| Amsted Industries | 5.6 | 67,900 |
| Anderson-Clayton & Co. | 3.7 | 51,700 |
| Anglo Co., Ltd. | 3.7 | 190,000 |
| Anheuser-Busch, Inc. | 9.3 | 119,900 |
| Apache Corp. | 5.6 | 74,666 |
| Aquitane Co. of Canada | 5.6 | 87,000 |
| ARA Services, Inc. | 1.9 | 3,600 |
| ARC | 1.9 | 5,300 |
| Archer-Daniels-Midland Co. | 7.4 | 55,000 |
| Arizona Public Service Co. | 3.7 | 53,500 |
| Arkansas Louisiana Gas Co. | 3.7 | 26,000 |
| Armco Steel | 3.7 | 500 |
| Armsted Industries, Inc. | 1.9 | 3,000 |
| Armstrong Cork Co. | 7.4 | 177,970 |
| Arts Way Mfg., Inc. | 1.9 | 63,300 |
| ASA, Ltd. | 1.9 | 100 |
| Asarco, Inc. | 3.7 | 50,300 |
| Ashland Oil, Inc. | 1.9 | 4,000 |
| Associated Dry Goods Corp. | 3.7 | 97,050 |
| Atlantic Richfield Co. | 55.6 | 318,300 |
| Augat, Inc. | 3.7 | 172,000 |
| Automatic Data Processing, Inc. | 3.7 | 6,000 |
| Automatic Switch Co. | 1.9 | 20,500 |
| Avantek, Inc. | 1.9 | 2,000 |
| Avery Int'l. Corp. | 3.7 | 190,900 |
| Avon Products, Inc. | 9.3 | 18,710 |
| Avnet, Inc. | 7.4 | 58,500 |
| Baker International Corp. | 18.5 | 146,701 |
| Baldor Electric Co. | 1.9 | 47,300 |
| Ball Corp. | 1.9 | 31,900 |
| Baltimore Gas & Electric Co. | 3.7 | 10,300 |
| Bandag, Inc. | 3.7 | 151,000 |
| Bank America Corp. | 7.4 | 76,400 |
| Banker's Trust Corp. | 5.6 | 105,090 |
| Bausch & Lomb, Inc. | 1.9 | 3,100 |
| Baxter-Travinol Labs, Inc. | 13 | 47,700 |
| BBDO International | 1.9 | 13,000 |
| Bearings, Inc. | 1.9 | 21,900 |
| Beatrice Foods Co. | 20.4 | 690,475 |
| Beckman Instruments | 7.4 | 60,000 |
| Becton Dickinson & Co | 7.4 | 133,900 |
| Belco Petroleum Corp. | 1.9 | 31,000 |
| Bendix Corp. | 1.9 | 200 |
| Beneficial Corp. | 3.7 | 6,100 |
| Bergen Brunswig Corp. | 1.9 | 16,400 |
| Best Products, Inc. | 11.1 | 113,600 |
| Bethlehem Steel Corp. | 5.6 | 12,400 |
| Betz Labs, Inc. | 5.6 | 87,100 |
| Big Three Ind. | 3.7 | 31,000 |
| Biochem Int'l, Inc. | 1.9 | 40,000 |
| Bio Rad Labs, Inc. | 1.9 | 6,300 |
| Biomedical Reference Labs | 1.9 | 17,500 |
| Black & Decker Mfg. Co. | 1.9 | 400 |
| Bliss & Laughlin Industries | 1.9 | 22,770 |
| Blue Bell | 11.1 | 80,500 |
| Boeing Co. | 18.5 | 221,900 |
| Boise Cascade Corp. | 5.6 | 13,400 |
| Borden, Inc. | 3.7 | 59,300 |
| Borg-Warner Group | 3.7 | 4,200 |
| Bow Valley Industries, Ltd. | 1.9 | 35,000 |
| BP Canada, Inc. | 1.9 | 25,000 |
| Braniff Int'l., Corp. | 1.9 | 170,000 |
| Brenda Mines, Ltd. | 1.9 | 54,400 |
| Briggs & Stratton Corp. | 1.9 | 100 |
| Bristol-Myers Co. | 13 | 89,058 |
| British Petroleum | 3.7 | 2,400 |
| Brockway Glass Co. | 1.9 | 6,000 |
| Brooklyn Union Gas Co. | 1.9 | 100 |
| Brooks Fashion, Inc. | 1.9 | 37,500 |
| Brooks Harvey Realty Inv. | 1.9 | 33,600 |
| Brunswick Corp. | 5.6 | 128,800 |
| Bucyrus Erie Co. | 9.3 | 170,100 |
| Burlington Industries, Inc. | 3.7 | 1,800 |
| Burlington Northern, Inc. | 5.6 | 591,000 |
| Burndy Corp. | 5.6 | 256,800 |
| Burroughs Corp. | 20.4 | 102,900 |
| Caldor, Inc. | 1.9 | 18,000 |
| California Computer Prod. | 1.9 | 38,652 |
| Campbell Red Lake Mines | 1.9 | 200 |
| Campbell Soup Co. | 3.7 | 43,000 |
| Campbell Taggart, Inc. | 1.9 | 2,500 |
| Cameron Iron Works | 1.9 | 51,600 |
| Capital Cities Communication, Inc. | 7.4 | 151,400 |
| Capital Holding Corp. | 7.4 | 64,800 |
| Carnation Co. | 11.1 | 67,700 |
| Carolina Power & Light | 1.9 | 4,000 |
| Carpenter Techology | 5.6 | 46,300 |
| Carter Hawley Hale | 7.4 | 91,900 |
| Castle & Cooke, Inc. | 1.9 | 82,950 |
| Caterpillar Tractor Co. | 31.5 | 316,487 |
| CBI Industries | 1.9 | 6,000 |
| CBS, Inc. | 13 | 85,400 |
| Celanese Corp. | 3.7 | 25,100 |
| Centex Corp. | 5.6 | 85,100 |
| Central Louisiana Energy | 1.9 | 40,000 |

# What stocks they hold

| Stock | % of Respondents Holding | Number of Shares Held |
|---|---|---|
| Central Pacific Minerals | 3.7 | 6,050 |
| Central & Southwest Corp. | 9.3 | 159,414 |
| Central Soya Co., Inc. | 1.9 | 140,400 |
| Central Tel. & Utilities | 9.3 | 54,700 |
| Centran Corp. | 1.9 | 13,000 |
| Cessna Aircraft Co. | 1.9 | 15,700 |
| CFS Continental, Inc. | 3.7 | 98,000 |
| Champion Spark Plug Co. | 11.1 | 70,900 |
| Charter NY Corp. | 1.9 | 1,500 |
| Chase Manhattan Bank | 7.4 | 122,200 |
| Chesebrough-Ponds, Inc. | 14.8 | 218,000 |
| Chessie System | 3.7 | 4,200 |
| Chicago Pneumatic Tool Co. | 1.9 | 100 |
| Chieftain Deve, Ltd. | 1.9 | 90,000 |
| Chrysler Corp. | 1.9 | 800 |
| Church's Fried Chicken, Inc. | 1.9 | 9,500 |
| Cincinnati Gas & Electric | 1.9 | 3,000 |
| Cincinnati Milacron | 1.9 | 100 |
| Circle K Corp. | 1.9 | 26,000 |
| Citicorp | 22.2 | 172,500 |
| Cities Service Co. | 3.7 | 12,500 |
| CIT Financial Corp. | 3.7 | 50,200 |
| City Investing Co. | 5.6 | 30,500 |
| Clark Equipment Co. | 13 | 59,300 |
| Clark Oil | 3.7 | 25,000 |
| Cleveland Cliffs Iron Co. | 5.6 | 74,200 |
| Cleveland Electric Illumination | 1.9 | 10,450 |
| Clorox Co. | 1.9 | 200 |
| Cluett, Peabody & Co. | 1.9 | 100 |
| CNA Finance Corp. | 1.9 | 300 |
| Coastal States Gas Corp. | 1.9 | 38,000 |
| Cobe Laboratories, Inc. | 1.9 | 40,000 |
| Coca-Cola Co. | 22.2 | 92,150 |
| Colgate-Palmolive Co. | 14.8 | 446,870 |
| Color Tile, Inc. | 3.7 | 58,000 |
| Colt Industries, Inc. | 7.4 | 33,700 |
| Columbia Gas System, Inc. | 1.9 | 29,600 |
| Commonwealth Edison Co. | 7.4 | 72,400 |
| Communications Industries | 1.9 | 82,000 |
| Community Psychiatric Centers | 1.9 | 3,000 |
| Computer Sciences | 3.7 | 15,000 |
| Comshare, Inc. | 1.9 | 5,000 |
| Cone Mills Corp. | 1.9 | 100 |
| Congoleum Corp. | 1.9 | 78,200 |
| Conn. General Insurance | 13.0 | 101,695 |
| Conoco, Inc. | 18.5 | 148,400 |
| Consolidated Edison (NY) | 11.1 | 59,000 |
| Consolidated Foods Corp. | 1.9 | 41,400 |
| Consolidated Freightways | 9.3 | 83,700 |
| Consolidated Natural Gas | 3.7 | 200 |
| Consolidated Oil & Gas, Inc. | 1.9 | 85,500 |
| Consolidated Papers, Inc. | 3.7 | 7,000 |
| Continental Airlines | 1.9 | 185,500 |
| Continental Group, Inc. | 7.4 | 150,870 |
| Continental Illinois Corp. | 11.1 | 31,060 |
| Continental Telephone Corp. | 9.3 | 75,800 |
| Continuous Curve Contact Lenses | 1.9 | 10,000 |
| Control Data Corp. | 5.6 | 21,200 |
| Cooper Industries, Inc. | 7.4 | 20,166 |
| Cooper Labs | 3.7 | 62,500 |
| Coors (Adolph) Co. | 1.9 | 300 |
| Copeland Corp. | 1.9 | 100 |
| Core Industries | 1.9 | 21,000 |
| Corning Glass Works | 5.6 | 30,300 |
| Cox Broadcasting Corp. | 1.9 | 100 |
| CPC Int'l, Inc. | 5.6 | 900 |
| CPT Corp. | 1.9 | 2,500 |
| Crane Co. | 1.9 | 104 |
| Cray Research, Inc. | 1.9 | 2,094 |
| Cross (AT) | 1.9 | 3,000 |
| Cross & Trucker Co. | 1.9 | 25,000 |
| Crouse-Hinds Co. | 3.7 | 155,950 |
| Crown Cork & Seal Co., Inc. | 1.9 | 100 |
| Crown Zellerbach | 5.6 | 36,300 |
| Crum & Forster, Inc. | 3.7 | 31,700 |
| Crutcher Resources | 3.7 | 230,800 |
| Cummins Engine Co. Inc. | 1.9 | 100 |
| Dana Corp. | 7.4 | 18,200 |
| Dart Industries, Inc. | 7.4 | 154,034 |
| Data General Corp. | 5.6 | 22,600 |
| Datapoint | 9.3 | 10,900 |
| Dataproducts | 3.7 | 65,900 |
| Data Terminal Systems | 1.9 | 10,000 |
| Dayton-Hudson Corp. | 9.3 | 51,400 |
| Dean Foods Co. | 1.9 | 20,000 |
| Deere & Co. | 9.3 | 56,300 |
| DeKalb Ag. Research | 3.7 | 101,000 |
| Delta Airlines, Inc. | 11.1 | 32,200 |
| Deluxe Check Printers | 3.7 | 10,000 |
| Denny's, Inc. | 5.6 | 79,500 |
| Dentsplay Int'l | 1.9 | 95,700 |
| Detroit Edison | 3.7 | 700 |
| Diamond Int'l Co. | 3.7 | 4,510 |
| Diamond Shamrock Corp. | 5.6 | 47,000 |
| Diebold | 1.9 | 34,000 |
| Digital Equipment | 22.2 | 141,400 |
| Digital Scientific | 1.9 | 62,000 |
| Dillingham Corp. | 1.9 | 179,600 |
| Disney (Walt) Productions | 7.4 | 44,777 |
| Dome Mines, Ltd. | 1.9 | 200 |
| Dome Petroleum | 7.4 | 109,000 |
| Dorchester Gas Corp. | 1.9 | 3,000 |
| Dover Corp. | 5.6 | 73,200 |
| Dow Chemical | 27.8 | 585,516 |
| Dravo | 3.7 | 83,000 |
| Dressler Industries | 20.4 | 120,500 |
| Dr. Pepper Co. | 5.6 | 22,200 |
| Duke Power Co. | 9.3 | 156,300 |
| Dun & Bradstreet Co. | 5.6 | 40,800 |
| DuPont, El de Nemours & Co. | 7.4 | 39,800 |
| Eastern Airlines, Inc. | 1.9 | 197,300 |
| Eastern Gas Fuel Associates | 3.7 | 67,200 |
| Eastman Kodak Co. | 27.8 | 297,908 |
| Eaton Corp. | 9.3 | 74,185 |
| Echlin Manufacturing Co. | 1.9 | 200 |
| Economics Laboratory | 1.9 | 148,000 |
| Eckerd (Jack) Corp. | 7.4 | 87,620 |
| Edison Brothers Stores, Inc. | 1.9 | 24,500 |
| El Paso Co. | 5.6 | 67,500 |
| Emerson Electric Co. | 20.4 | 244,400 |
| Emery Air Freight | 3.7 | 16,200 |
| Employers Casualty Co. | 1.9 | 9,000 |
| Energy Reserves Group | 3.7 | 75,000 |
| Englehard Minerals & Chemicals | 9.3 | 26,620 |
| Enserch Corp. | 7.4 | 83,100 |
| Equifax, Inc. | 1.9 | 3,000 |
| Equitable Gas Co. | 1.9 | 9,300 |
| ERC | 1.9 | 43,000 |
| Esmark, Inc. | 1.9 | 200 |
| Ethyl Corp. | 1.9 | 9,500 |
| Evans Products | 5.6 | 54,100 |
| Ex-Cell-O | 1.9 | 100 |
| Exxon Corp. | 46.3 | 482,989 |
| Fabergé | 1.9 | 100 |
| Farinon Corp. | 1.9 | 30,000 |
| Farmer's Group, Inc. | 1.9 | 3,500 |
| Fedders | 1.9 | 100 |
| Federal Express | 1.9 | 37,000 |
| Federal Farm Cr. | 1.9 | 250,000 |
| Federal National Mortgage Associates | 7.4 | 114,100 |
| Federal Paper Board Co. | 1.9 | 100 |
| Federated Department Stores | 7.4 | 89,400 |
| Fidelity Daily Income Trust | 1.9 | 85,208 |
| Fidelity Financial Corp. | 1.9 | 30,000 |
| Financial Federation | 1.9 | 25,000 |
| Firestone Tire & Rubber Co. | 3.7 | 39,000 |
| First Bank Systems, Inc. | 3.7 | 91,730 |
| First Charter Financial Corp. | 7.4 | 187,400 |

# What stocks they hold

| Stock | % of Respondents Holding | Number of Shares Held |
|---|---|---|
| First Chicago Corp. | 1.9 | 400 |
| First City Bancorporation, Texas | 5.6 | 74,000 |
| First International Bancshares | 5.6 | 14,525 |
| First Mississippi Corp. | 3.7 | 44,600 |
| First National Boston | 1.9 | 100 |
| Fleetwood Enterprises, Inc. | 1.9 | 100 |
| Flightsafety International | 3.7 | 31,000 |
| Flintkote Co. | 1.9 | 105 |
| Florida Commercial Banks | 1.9 | 6,900 |
| Florida Power Co. | 7.4 | 66,818 |
| Florida Power & Light Co. | 5.6 | 93,100 |
| Fluor Corp. | 5.6 | 16,000 |
| FMC Corp. | 3.7 | 4,300 |
| Ford Motor Co. | 14.8 | 63,465 |
| Forest Oil Co. | 1.9 | 50,000 |
| Foster Wheeler Corp. | 1.9 | 200 |
| Fourphase Common Corp. | 1.9 | 10,000 |
| Fox-Stanley Photo Products, Inc. | 1.9 | 100,000 |
| Franklin Electric Co. | 1.9 | 40,000 |
| Freeport Minerals Co. | 1.9 | 110,000 |
| Frontier Airlines, Inc. | 1.9 | 81,000 |
| Fruehauf Corp. | 1.9 | 100 |
| Gannett Co. | 3.7 | 800 |
| Gates Learjet | 3.7 | 6,750 |
| Gatx Corp. | 5.6 | 22,500 |
| Gelco Corp. | 1.9 | 13,700 |
| General American Oil Co., Texas | 3.7 | 36,166 |
| General Automation, California | 1.9 | 138,400 |
| General Automotive Parts | 1.9 | 20,000 |
| General Dynamics Corp. | 3.7 | 26,250 |
| General Electric Co. | 35.2 | 350,562 |
| General Foods Corp. | 7.4 | 207,415 |
| General Instrument Corp. | 3.7 | 5,000 |
| General Mills Corp. | 7.4 | 86,900 |
| General Motors Corp. | 22.2 | 211,209 |
| General Portland Corp. | 1.9 | 100 |
| General Reinsurance Corp. | 1.9 | 8,600 |
| General Signal Corp. | 3.7 | 3,200 |
| General Telephone & Electronics | 11.1 | 235,780 |
| Genesco Corp. | 1.9 | 100 |
| Genuine Parts Co. | 3.7 | 3,300 |
| Georgia Pacific Corp. | 18.5 | 360,808 |
| Geosource | 1.9 | 8,200 |
| Gerber Products Co. | 3.7 | 100 |
| Getty Oil Co. | 16.7 | 94,500 |
| Giddings & Lewis | 1.9 | 100 |
| Gilbraltar Financial Corp. | 1.9 | 110,000 |
| Gillette Co. | 7.4 | 50,300 |
| GK Technologies | 1.9 | 3,300 |
| Gleason Works | 1.9 | 175,000 |
| Global Marine | 3.7 | 50,100 |
| Golden West Financial | 5.6 | 156,000 |
| Goodrich (BF) Co. | 1.9 | 200 |
| Goodyear Tire & Rubber Co. | 7.4 | 231,594 |
| Gould, Inc. | 3.7 | 18,300 |
| Grainger (W.W.), Inc. | 1.9 | 10,800 |
| Great Atlantic & Pacific Tea Co. | 1.9 | 200 |
| Great Lakes Chemical | 3.7 | 25,000 |
| Great Northern Nekoosa Corp. | 5.6 | 15,700 |
| Great Western Financial Corp. | 11.1 | 246,700 |
| Grumman Co. | 1.9 | 100 |
| Gulf Canada, Ltd. | 3.7 | 3,000 |
| Gulf Oil Corp. | 14.8 | 155,288 |
| Gulf United Corp. | 7.4 | 161,900 |
| Gulf & Western Industries | 3.7 | 62,100 |
| Haemonetics | 1.9 | 91,200 |
| Hall (Frank B.) & Co. | 1.9 | 30,000 |
| Halliburton Co. | 24.1 | 104,600 |
| Harcourt, Brace, Jovanovich, Inc. | 3.7 | 124,500 |
| Harland (John) Co. | 3.7 | 43,900 |
| Harris Corp. | 3.7 | 53,700 |
| Harris Bankcorp, Inc. | 1.9 | 109,500 |
| Harsco Corp. | 1.9 | 3,000 |
| Hart, Schaffer & Marx, Inc. | 1.9 | 100 |
| Harte Hanks | 1.9 | 12,500 |
| Hawaii Bancorporation | 1.9 | 60,000 |
| Hayes-Albion | 1.9 | 75,000 |
| Hazelton Laboratories | 3.7 | 18,000 |
| Health-Tex, Inc. | 1.9 | 24,950 |
| Heck's, Inc. | 1.9 | 99,000 |
| Heinz (HJ) Co. | 1.9 | 118,975 |
| Heizer Corp. | 1.9 | 455,000 |
| Heller (Walter E.) Int'l | 3.7 | 156,200 |
| Hercules, Inc. | 11.1 | 156,600 |
| Hershey Foods Corp. | 3.7 | 7,100 |
| Heublein, Inc. | 9.3 | 51,900 |
| Hewlett Packard Co. | 7.4 | 21,100 |
| Hilton Hotels Corp. | 13. | 43,900 |
| Hiram Walker | 1.9 | 200 |
| Honeywell, Inc. | 11.1 | 49,500 |
| Hospital Corp. of America | 11.1 | 53,300 |
| Household Finance Corp. | 5.6 | 67,500 |
| Houston Industries, Inc. | 13. | 66,100 |
| Houston Natural Gas Corp. | 3.7 | 8,500 |
| Howard Johnson Co. | 1.9 | 200 |
| H & R Block, Inc. | 1.9 | 1,500 |
| Hubbell (Harvey), Inc. | 1.9 | 46,200 |
| Hudson Bay Oil & Gas Co., Ltd. | 1.9 | 56,500 |
| Hughes Tool Co. | 16.7 | 252,650 |
| Humana | 5.6 | 38,100 |
| Husky Oil, Ltd. | 1.9 | 49,100 |
| Huyck, Inc. | 1.9 | 200,400 |
| Hyster Co. | 3.7 | 17,000 |
| IBM | 86.7 | 596,072 |
| IC Industries | 1.9 | 200 |
| Ideal Basic Industries, Inc. | 1.9 | 5,600 |
| Illinois Tool Works | 1.9 | 12,000 |
| Imperial Oil, Ltd. | 11.1 | 162,200 |
| IMS International | 1.9 | 45,500 |
| INA Corp. | 1.9 | 300 |
| Inco, Ltd. | 1.9 | 9,800 |
| Inexco Oil Co. | 1.9 | 62,500 |
| Ingersoll-Rand Co. | 5.6 | 26,700 |
| Inland Steel Co. | 5.6 | 60,900 |
| Instrumentation Laboratory | 1.9 | 45,000 |
| Intel Corp | 11.1 | 46,387 |
| Interco, Inc. | 9.3 | 53,800 |
| Interlake, Inc. | 1.9 | 100 |
| Int'l Flavors & Fragrances | 5.6 | 17,900 |
| International Harverster Co. | 5.6 | 7,100 |
| Int'l Paper Co. | 13. | 221,040 |
| International Telephone & Telegraph | 12.9 | 152,945 |
| Int'l Mineral & Chemical | 3.7 | 4,800 |
| Interpublic Group of Cos., Inc. | 1.9 | 57,000 |
| Intersil Common | 1.9 | 10,200 |
| James River Corp. | 1.9 | 8,088 |
| Jefferson Pilot | 5.6 | 19,000 |
| Jewel Cos., Inc. | 7.4 | 66,700 |
| Jim Walter Corp. | 3.7 | 10,200 |
| Johns Manville | 3.7 | 700 |
| Johnson & Johnson | 20.4 | 205,529 |
| Jonathan Logan, Inc. | 1.9 | 100 |
| Joseph Schlitz Brewing Co. | 1.9 | 300 |
| Joy Manufacturing | 9.3 | 88,100 |
| K-Mart Corp. | 31.5 | 593,196 |
| Kaiser Aluminum & Chemical Corp. | 7.4 | 90,300 |
| Kaufman Aluminum & Chemical Corp. | 1.9 | 400 |
| Kellogg Co. | 1.9 | 800 |
| Kennametal, Inc. | 1.9 | 48,800 |
| Kennecott Copper Corp. | 3.7 | 105,000 |
| Kerr McGee Corp. | 9.3 | 14,600 |
| Kevex Corp. | 3.7 | 59,195 |
| Keystone International, Inc. | 3.7 | 75,525 |
| Kimberly-Clark Corp. | 11.1 | 169,100 |
| Knight-Ridder Newspapers, Inc. | 3.7 | 180,300 |
| Koger Properties | 1.9 | 66,000 |

# What stocks they hold

| Stock | % of Respondents Holding | Number of Shares Held |
|---|---|---|
| Koppers, Inc. | 1.9 | 15,000 |
| Kraft, Inc. | 7.4 | 46,300 |
| Kroger Co. | 3.7 | 18,900 |
| Kroy Industries, Inc. | 1.9 | 10,600 |
| Lance, Inc. | 1.9 | 1,000 |
| Lancana Mining Corp. | 1.9 | 87,000 |
| La Quinta Motor Inns, Inc. | 1.9 | 2,500 |
| Lanier Business Products | 3.7 | 1,500 |
| Lawson Products, Inc. | 1.9 | 90,000 |
| Lear-Siegler Corp. | 3.7 | 65,000 |
| Leaseway Transportation Corp. | 1.9 | 3,700 |
| Leggett Platt, Inc. | 1.9 | 50,000 |
| Lenox, Inc. | 1.9 | 79,900 |
| Levi Strauss & Co. | 14.8 | 33,485 |
| Libbey-Owens Ford Co. | 1.9 | 100 |
| Liberty National Life Insurance Co. | 3.7 | 39,833 |
| Liberty Corp. | 1.9 | 9,700 |
| Liggett Group, Inc. | 1.9 | 100 |
| Lilly, Eli & Co. | 1.9 | 59,600 |
| Lin Broadcasting Corp. | 1.9 | 20,000 |
| Lincoln National Corp. Industries | 3.7 | 9,200 |
| Lindberg Corp. | 1.9 | 5,000 |
| Litton Industries, Inc. | 5.6 | 50,515 |
| Lockheed Corp. | 1.9 | 136,800 |
| Loctite Corp. | 1.9 | 125,000 |
| Loews Cos. | 1.9 | 193,600 |
| Lomas & Nettleton | 1.9 | 7,300 |
| Lone Star Industries, Inc. | 1.9 | 100 |
| Longview Fibre Co. | 1.9 | 4,000 |
| Louisiana Land & Exploration | 5.6 | 7,700 |
| Louisiana-Pacific Corp. | 3.7 | 8,506 |
| Louisville Gas & Electric Co. | 1.9 | 21,300 |
| Lubrizol Corp. | 7.4 | 10,000 |
| Lucky Stores, Inc. | 1.9 | 433 |
| MacMillan Bloedel, Ltd. | 1.9 | 10,000 |
| MacMillan, Inc. | 1.9 | 100 |
| Macy (R. H.) & Co. | 1.9 | 4,900 |
| Mapco, Inc. | 7.4 | 37,500 |
| Management Assistance, Inc. | 5.6 | 192,500 |
| Manufacturers Hanover Corp. | 5.6 | 25,600 |
| Marathon Oil | 13.0 | 57,900 |
| Marion Laboratories, Inc. | 1.9 | 40,000 |
| Mark Controls | 1.9 | 3,714 |
| Marriott Corp. | 3.7 | 338,235 |
| Marshall Field & Co. | 1.9 | 100 |
| Marsh & McLennan Cosmetics | 11.1 | 34,900 |
| Martin Marietta Corp. | 9.3 | 52,300 |
| Maryland Cup Corp. | 1.9 | 100 |
| Maryland National Bank | 1.9 | 168,600 |
| Masco Corp. | 13.0 | 401,300 |
| Masonite Corp. | 1.9 | 100 |
| Massey Ferguson, Ltd. | 1.9 | 200 |
| Materials Research Corp. | 1.9 | 6,573 |
| May Department Stores Co. | 3.7 | 18,700 |
| May Petroleum, Inc. | 1.9 | 65,000 |
| Maytag Co. | 3.7 | 49,300 |
| MCA, Inc. | 3.7 | 30,261 |
| McDermott (J. Ray) Co. | 7.4 | 319,000 |
| McDonald's Corp. | 14.8 | 66,700 |
| McDonnell Douglas Corp. | 7.4 | 45,000 |
| McFarland Energy | 1.9 | 16,000 |
| McGraw-Edison Co. | 3.7 | 6,200 |
| McGraw Hill, Inc. | 5.6 | 62,800 |
| MCI Communications Corp. | 1.9 | 50,000 |
| McLean Trucking Co. | 1.9 | 100 |
| McMoran Oil & Gas Co. | 3.7 | 64,100 |
| Mead Corp. | 3.7 | 700 |
| Measurex Corp. | 5.6 | 107,000 |
| Medtronic, Inc. | 5.6 | 71,000 |
| MEI Corp. | 1.9 | 100,000 |
| Mellon National Corp. | 3.7 | 40,200 |
| Melville Corp. | 1.9 | 200 |
| Memorex Corp. | 1.9 | 162,400 |
| Merck & Co. | 22.2 | 91,410 |
| Mercantile Texas Corp. | 1.9 | 66,660 |
| Merland Exploration, Ltd. | 1.9 | 80,000 |
| Merrill Lynch & Co. | 3.7 | 59,000 |
| Mesa Petroleum Co. | 11.1 | 98,700 |
| Mesa Royalty Trust | 7.4 | 94,700 |
| Metpath, Inc. | 3.7 | 104,750 |
| Metro Goldwyn Mayer, Inc. | 1.9 | 349 |
| Meyers Parking System, Inc. | 1.9 | 32,845 |
| MGIC Investment Corp. | 1.9 | 100,000 |
| Microdyne Corp. | 1.9 | 3,000 |
| Middle South Utilities, Inc. | 3.7 | 18,800 |
| Midland Ross Corp. | 1.9 | 7,000 |
| The Miller-Wohl Co., Inc. | 1.9 | 2,800 |
| Millipore Corp. | 3.7 | 85,000 |
| Milton Bradley Co. | 5.6 | 45,100 |
| Minnesota Mining & Manufacturing | 22.2 | 256,031 |
| Missouri Pacific | 9.3 | 18,200 |
| Mitchell Energy & Development | 3.7 | 3,600 |
| Missouri Pacific Corp. | 1.9 | 200 |
| Mobil Corp | 13 | 339,750 |
| Mohasco Corp. | 1.9 | 100 |
| Molex, Inc. | 1.9 | 90,100 |
| Monarch Capital Corp. | 1.9 | 100,000 |
| Monsanto Co. | 14.8 | 202,427 |
| Moran Brothers | 3.7 | 139,900 |
| Morgan (J. P.) & Co. | 18.5 | 174,100 |
| Morrison-Knudsen | 1.9 | 3,000 |
| Morton-Norwich | 3.7 | 61,500 |
| Motorola, Inc. | 22.2 | 199,462 |
| Mountain Fuel Supply | 1.9 | 18,000 |
| MTS System Corp. | 1.9 | 25,500 |
| Multimedia, Inc. | 1.9 | 67,500 |
| Murphy Oil Corp. | 1.9 | 31,900 |
| Nabisco, Inc. | 5.6 | 66,600 |
| Nalco Chemical | 5.6 | 36,400 |
| Nashua Corp. | 1.9 | 1,000 |
| National Computers System, Inc. | 3.7 | 44,100 |
| National Data Corp. | 1.9 | 55,900 |
| National Distillers & Chemical Corp. | 3.7 | 300 |
| National Gypsum Co. | 1.9 | 200 |
| National Medical Care, Inc. | 3.7 | 24,400 |
| National Medical Enterprises | 3.7 | 11,798 |
| National Semi-Conductor | 5.6 | 4,100 |
| National Service Industries | 1.9 | 20,000 |
| NCH Corp. | 1.9 | 70,000 |
| NCNB Corp. | 3.7 | 200,200 |
| NCR | 11.1 | 88,900 |
| New Court Partners | 1.9 | 1 |
| New England Electric System | 1.9 | 200 |
| New England Nuclear Corp. | 1.9 | 55,000 |
| New York Times Co. | 1.9 | 53,000 |
| Niagara Mohawk Power Corp. | 1.9 | 700 |
| Nickolos Oil & Gas Co. | 5.6 | 158,200 |
| NL Industries | 9.3 | 83,300 |
| NLT Corp. | 5.6 | 47,000 |
| Noble Affiliates | 9.3 | 75,400 |
| Norcon Energy Resources, Ltd. | 1.9 | 60,000 |
| Nordstrom, Inc. | 1.9 | 40,500 |
| Norfolk & Western Railway Co. | 5.6 | 60,000 |
| Norris Industries | 3.7 | 88,000 |
| Northeast Utilities | 1.9 | 22,000 |
| Northern Nat. Gas Co. | 5.6 | 13,200 |
| Northern States Power Co. | 7.4 | 86,800 |
| Northern Telecom, Ltd. | 9.3 | 80,200 |
| Northrop Corp. | 5.6 | 45,700 |
| Northwest Airlines | 11.1 | 106,700 |
| Northwest Bancorporation | 7.4 | 25,160 |
| Northwest Industries | 5.6 | 16,300 |
| Northwestern Nat. Life Ins. Co. | 1.9 | 27,300 |
| Norton Simon, Inc. | 1.9 | 34,127 |
| Nowsco Well, Ltd. | 1.9 | 57,000 |

# What stocks they hold

| Stock | % of Respondents Holding | Number of Shares Held |
|---|---|---|
| Noxell Corp. | 3.7 | 52,100 |
| Nucor Corp. | 3.7 | 13,500 |
| Oak Industries, Inc. | 1.9 | 16,000 |
| Occidental Petroleum | 13 | 105,900 |
| Ocean Drilling & Exploration Co. | 1.9 | 2,200 |
| Ocean Oil & Gas Co. | 1.9 | 46,000 |
| Ocelot Industries, Ltd. | 1.9 | 60,000 |
| Ogilvy & Mather | 3.7 | 35,000 |
| Ohio Casualty Corp. | 1.9 | 35,000 |
| Ohio Edison Co. | 1.9 | 600 |
| Oklahoma Natural Gas Co. | 1.9 | 150 |
| Oscar Meyer & Co., Inc. | 1.9 | 100 |
| Outboard Marine Corp. | 1.9 | 100 |
| Overseas Shipholding Group, Inc. | 1.9 | 85,000 |
| Owens Corning Fiberglass Corp. | 3.7 | 20,300 |
| Owens-Illinois, Inc. | 5.6 | 166,688 |
| Pabst Brewing Co. | 1.9 | 100 |
| Paccar, Inc. | 1.9 | 2,000 |
| Pacific Gas & Electric Co. | 3.7 | 116,100 |
| Pacific Lighting Corp. | 1.9 | 200 |
| Pacific Northwest Bell Corp. | 11.9 | 6,000 |
| Pacific Plantronics | 1.9 | 43,000 |
| Pall Corp. | 3.7 | 51,000 |
| Palm Beach, Inc. | 3.7 | 25,000 |
| Pan American World Airways, Inc. | 3.7 | 2,750 |
| Panhandle Eastern Pipeline Co. | 3.7 | 9,200 |
| Parker Drilling Co. | 5.6 | 11,000 |
| Parker-Hannifin Corp. | 3.7 | 15,300 |
| Parker Pen Co. | 3.7 | 70,000 |
| Parsons (R.M.) Corp. | 1.9 | 66,450 |
| Payless Cashways, Inc. | 5.6 | 112,500 |
| Pay 'N' Pak Stores, Inc. | 3.7 | 111,200 |
| Peabody Int. Corp. | 3.7 | 21,110 |
| Peoples Energy Corp. | 1.9 | 8,000 |
| Peoples Gas Co. | 1.9 | 299 |
| Peavey Co. | 1.9 | 5,000 |
| Penney (JC) Co. | 16.7 | 725,500 |
| Pennwalt Corp. | 1.9 | 67,800 |
| Pennzoil Co. | 5.6 | 33,000 |
| Pentair, Inc. | 1.9 | 40,000 |
| Pepsico Inc. | 16.7 | 188,421 |
| Perkin Elmer Corp. | 1.9 | 200 |
| Petrie Stores | 1.9 | 10,000 |
| Petrolite Corp. | 3.7 | 91,000 |
| Pfizer, Inc. | 14.8 | 114,200 |
| Phelps Dodge Corp. | 9.3 | 155,100 |
| PHH Group Inc. | 3.7 | 147,900 |
| Philadelphia Electric Co. | 1.9 | 800 |
| Philadelphia Suburban Corp. | 1.9 | 8,000 |
| Philip Morris | 33.3 | 426,190 |
| Phillips Petroleum Co. | 29.6 | 203,700 |
| Pic 'N' Save Corp. | 3.7 | 28,000 |
| Pillsbury Co. | 7.4 | 180,456 |
| Pioneer Hi-Bred Int'l Inc. | 1.9 | 73,000 |
| Pitney Bowes Inc. | 9.3 | 15,800 |
| Pittsburgh National Corp. | 5.6 | 14,000 |
| Pittston Co. | 13. | 65,350 |
| Pogo Producing Co. | 1.9 | 244,000 |
| Polaroid Corp. | 5.6 | 60,300 |
| Portec, Inc. | 1.9 | 2,205 |
| Potlatch Corp. | 1.9 | 200 |
| PPG Industries | 3.7 | 20,350 |
| Precision Castparts Corp. | 1.9 | 40,500 |
| Prentice-Hall, Inc. | 3.7 | 68,984 |
| Printronix, Inc. | 3.7 | 59,200 |
| Proctor & Gamble | 24. | 82,955 |
| Prudential Building Maintenance Corp. | 1.9 | 29,691 |
| Public Service Co. of Indiana, Inc. | 3.7 | 36,300 |
| Pullman, Inc. | 5.6 | 26,100 |
| Pulte Home | 1.9 | 2,100 |
| Purex Industries, Inc. | 3.7 | 2,300 |
| Puritan Bennett Corp. | 1.9 | 114,000 |
| Quaker Oats Co. | 5.6 | 63,200 |
| Quality Care, Inc. | 1.9 | 60,000 |
| Questor Corp. | 1.9 | 100 |
| Rainier Bancorporation | 1.9 | 40,000 |
| Ralston Purina Co. | 7.4 | 91,300 |
| Ramada Inns, Inc. | 1.9 | 300 |
| Raychem | 11.1 | 213,500 |
| Raymond International, Inc. | 1.9 | 50,000 |
| Raytheon Corp. | 27.8 | 140,000 |
| RCA Corp. | 3.7 | 60,600 |
| Reading & Bates Corp. | 3.7 | 1,700 |
| Redman Industries, Inc. | 1.9 | 100 |
| Reliance Electric Co. | 1.9 | 200 |
| Republic Steel Corp. | 1.9 | 200 |
| Republic of Texas Corp. | 3.7 | 68,000 |
| Revco (D.S.), Inc. | 11.1 | 159,400 |
| Revere Copper & Brass, Inc. | 1.9 | 100 |
| Revlon, Inc. | 9.3 | 26,800 |
| Rexnord, Inc. | 1.9 | 200 |
| Reynolds Metals | 3.7 | 4,200 |
| Reynolds (RJ) Industries | 13.0 | 116,000 |
| Reynolds & Reynolds | 1.9 | 144,000 |
| Rio Grande | 1.9 | 3,800 |
| Rite Aid Corp. | 5.6 | 177,400 |
| Roadway Express, Inc. | 5.6 | 5,000 |
| Robinson Nugent, Inc. | 1.9 | 36,000 |
| Rockwell International Corp. | 1.9 | 400 |
| Rohm & Haas Co. | 3.7 | 89,500 |
| Rohr Industries, Inc. | 1.9 | 50,000 |
| Roper Corp. | 1.9 | 100 |
| Rorer Group, Inc. | 1.9 | 20,000 |
| Royal Crown Cos. | 1.9 | 1,400 |
| Royal Dutch Petroleum Co. | 7.4 | 15,000 |
| Rouse Co. | 1.9 | 95,000 |
| Rowan Cos. | 7.4 | 227,000 |
| Ryan Homes, Inc. | 3.7 | 131,000 |
| Ryland Group, Inc. | 1.9 | 4,400 |
| Sabine Corp. | 5.6 | 30,555 |
| Safeco Corp. | 7.4 | 45,250 |
| Safety Kleen Corp. | 1.9 | 46,000 |
| Safeway Stores, Inc. | 1.9 | 300 |
| Saint Joe Minerals | 5.6 | 19,200 |
| Saint Paul Cos. | 9.3 | 72,810 |
| Saint Regis Paper Co. | 7.4 | 68,400 |
| Sanders Associates, Inc. | 5.6 | 38,000 |
| Santa Fe Industries | 5.6 | 61,300 |
| Santa Fe International Corp. | 5.6 | 57,200 |
| Savin Corp. | 3.7 | 10,000 |
| Schering Plough | 14.8 | 108,200 |
| Schlumberger | 37. | 124,450 |
| SCI Systems, Inc. | 1.9 | 62,625 |
| Scientific Atlanta, Inc. | 3.7 | 16,550 |
| Scoa Industries, Inc. | 1.9 | 60,000 |
| Scott & Feitzer Co. | 1.9 | 30,200 |
| Scott, Foresman & Co. | 1.9 | 100 |
| Scott Paper Co. | 3.7 | 9,400 |
| Seaboard Coast Line Ind. | 1.9 | 100 |
| Sea Containers, Inc. | 1.9 | 2,400 |
| Seagram Co., Ltd. | 3.7 | 300 |
| Sealed Power Corp. | 1.9 | 10,000 |
| Searle, G. D. & Co. | 3.7 | 45,500 |
| Sears Roebuck & Co. | 13. | 161,822 |
| Security Pacific Corp. | 3.7 | 165,000 |
| Sedco | 1.9 | 100 |
| Sensormatic Electronics Corp. | 5.6 | 21,600 |
| Sequoia Capital II | 1.9 | 1 |
| Service Inds., Inc. | 3.7 | 2,000 |
| Shared Medical Systems Corp. | 3.7 | 71,000 |
| Shell Oil Co. | 7.4 | 56,000 |
| Sherwin Williams Co. | 1.9 | 100 |
| Sighal Cos. | 7.4 | 63,500 |
| Signode Corp. | 3.7 | 49,125 |
| Simmonds Precision Products | 1.9 | 71,000 |
| Singer Co. | 1.9 | 200 |

# What stocks they hold

| Stock | % of Respondents Holding | Number of Shares Held |
|---|---|---|
| Skyline Corp. | 1.9 | 100 |
| Smith International, Inc. | 7.4 | 39,300 |
| SmithKline Corp. | 22.2 | 133,500 |
| Southern Calif. Edison | 5.6 | 18,600 |
| Southern Co. | 1.9 | 1,400 |
| Southern Natural Resources | 7.4 | 16,100 |
| Southern Pacific Co. | 7.4 | 6,700 |
| Southern Railway Co. | 13. | 48,800 |
| Southland Corp. | 7.4 | 46,136 |
| Southland Royalty Co. | 9.3 | 84,000 |
| Southwestern Life Corp. | 1.9 | 20,000 |
| Spectra-Physics, Inc. | 1.9 | 35,100 |
| Sperry Corp. | 7.4 | 21,900 |
| Sperry-Rand Corp. | 9.3 | 60,850 |
| Springs Mill, Inc. | 1.9 | 100 |
| Square D Co. | 11.1 | 207,233 |
| Squibb Corp. | 5.6 | 24,000 |
| Staley (A.E.) Mfg. Co. | 3.7 | 44,000 |
| Standard Brands Paint Co. | 9.3 | 57,300 |
| Standard Oil of Calif. | 31.5 | 141,000 |
| Standard Oil of Indiana | 33.3 | 247,599 |
| Standard Oil of Ohio | 16.7 | 76,747 |
| Standard Pacific | 1.9 | 16,300 |
| Stanley Works | 5.6 | 18,500 |
| Stauffer Chemical | 13 | 152,000 |
| Stevens (JP) & Co. | 1.9 | 110 |
| Sterling Drug Co. | 5.6 | 34,200 |
| Storage Tech. Corp. | 1.9 | 7,500 |
| Storer Broadcasting | 1.9 | 17,000 |
| Sunbeam Corp. | 3.7 | 2,200 |
| Sun Chemical | 1.9 | 24,400 |
| Sun Oil Co. | 1.9 | 11,000 |
| Sun Electric Corp. | 5.6 | 78,000 |
| Sunstrand Corp. | 5.6 | 96,000 |
| Superior Oil Co. | 9.3 | 56,125 |
| Supermarkets General Corp. | 1.9 | 3,000 |
| SuperValu Stores, Inc. | 1.9 | 60,000 |
| Suppron Energy Corp. | 3.7 | 125,000 |
| Sybron Corp. | 1.9 | 7,500 |
| Syntex Corp. | 9.3 | 65,100 |
| Sysco Corp. | 1.9 | 1,500 |
| Taft Broadcasting Co. | 3.7 | 10,100 |
| Tandem Computers, Inc. | 3.7 | 102,850 |
| Tandy Corp. | 9.3 | 154,900 |
| Teck, Ltd. | 1.9 | 100,000 |
| Tektronix, Inc. | 7.4 | 26,800 |
| Teleco Oil Field Services, Inc. | 1.9 | 100,000 |
| Teledyne, Inc. | 3.7 | 10,608 |
| Telesciences, Inc. | 1.9 | 772,226 |
| Tenneco, Inc. | 11.1 | 52,500 |
| Teradyne, Inc. | 1.9 | 155,000 |
| Texaco, Inc. | 9.3 | 110,656 |
| Texaco Canada, Inc. | 1.9 | 22,000 |
| Texas Commerce Bancshares | 1.9 | 8,000 |
| Texas Eastern Corp. | 7.4 | 61,200 |
| Texas Gas Transmission Corp. | 9.3 | 123,900 |
| Texasgulf, Inc. | 3.7 | 5,300 |
| Texas Instruments, Inc. | 7.4 | 16,700 |
| Texas Oil & Gas Corp. | 7.4 | 62,400 |
| Texas Utilities Co. | 9.3 | 304,340 |
| Textron, Inc. | 5.6 | 30,300 |
| Thiokol Corp. | 3.7 | 29,200 |
| Thomas & Betts Corp. | 3.7 | 3,600 |
| Thomson (Walter) | 1.9 | 10,000 |
| Tidewater, Inc. | 1.9 | 50,000 |
| Tiger International, Inc. | 3.7 | 95,000 |
| Time, Inc. | 3.7 | 28,242 |
| Times Mirror Co. | 3.7 | 6,300 |
| Timken Co. | 3.7 | 1,100 |
| Todd Shipyards Corp. | 3.7 | 28,000 |
| Toys R US | 3.7 | 75,000 |
| Trane Co | 5.6 | 98,216 |
| Transamerica Corp. | 11.1 | 134,600 |
| Transco Cos., Inc. | 7.4 | 51,000 |
| Trans-Industries, Inc. | 1.9 | 188,325 |
| Transway International Corp. | 1.9 | 4,000 |
| Trans World Corp. | 1.9 | 128,000 |
| Traveler's Corp. | 7.4 | 16,900 |
| Triad Systems Corp. | 3.7 | 9,650 |
| Trimac, Ltd. | 1.9 | 45,600 |
| TRW, Inc. | 7.4 | 20,300 |
| Turbo Resources, Ltd | 3.7 | 169,000 |
| Twentieth Century Fox | 5.6 | 106,900 |
| Tyco Laboratories,Inc. | 1.9 | 10,000 |
| Tymshare, Inc. | 1.9 | 10,000 |
| UAL, Inc. | 20.4 | [illegible] |
| UMC Industries, Inc. | 1.9 | 100 |
| Union Camp Corp. | 7.4 | 177,215 |
| Union Carbide Corp. | 11.1 | 50,929 |
| Union Oil of Calif. | 16.7 | 140,800 |
| Union Pacific Corp. | 22.2 | 68,500 |
| Uniroyal, Inc. | 1.9 | 300 |
| United Energy Resources, Inc. | 3.7 | 33,000 |
| United Foods, Inc. | 1.9 | 49,000 |
| United Keno Hills Mines, Ltd. | 1.9 | 27,000 |
| U.S. Bancorporation | 1.9 | 4,000 |
| U.S. Fidelity & Guaranty Co. | 11.1 | 72,990 |
| United States Gypsum Co. | 1.9 | 200 |
| U.S. Home | 3.7 | 30,100 |
| U.S. Steel Corp. | 7.4 | 17,900 |
| U.S. Surgical Corp. | 1.9 | 53,000 |
| U.S. Tobacco Co. | 3.7 | 53,600 |
| United Technologies Corp. | 13. | 95,200 |
| United Telecommunications | 9.3 | 61,200 |
| Universal Foods Corp. | 1.9 | 81,650 |
| Upjohn Co. | 7.4 | 16,600 |
| Utah Light & Power Co. | 1.9 | 9,700 |
| Vallen Corp. | 1.9 | 45,000 |
| Van Dusen Air, Inc. | 1.9 | 47,000 |
| Varco International, Inc. | 1.9 | 55,000 |
| Varian Associates | 1.9 | 3,000 |
| Vermont American Corp. | 1.9 | 93,000 |
| VF Corp. | 1.9 | 100 |
| Virginia Electric & Power Co. | 1.9 | 900 |
| VSI Corp. | 1.9 | 52,000 |
| Wachovia Corp. | 1.9 | 18,000 |
| Walgreen Co. | 1.9 | 57,500 |
| Wal-Mart Stores, Inc. | 3.7 | 81,500 |
| Walter (Jim) Corp. | 1.9 | 42,300 |
| Warner Communications, Inc. | 5.6 | 45,133 |
| Warner Lambert Co. | 9.3 | 294,550 |
| Waste Management, Inc. | 7.4 | 17,000 |
| Waters Associates, Inc. | 1.9 | 2,600 |
| Watkins Johnson | 3.7 | 22,400 |
| Weatherford International, Inc. | 1.9 | 3,000 |
| Weis Markets, Inc. | 1.9 | 39,500 |
| Weldwood of Canada, Ltd. | 1.9 | 42,600 |
| Wells Fargo Co. | 9.3 | 172,466 |
| West Point-Pepperell, Inc. | 3.7 | 6,500 |
| Western Airlines, Inc. | 1.9 | 54,200 |
| Western Bancorp | 5.6 | 41,350 |
| Western Casualty & Surety Co. | 1.9 | 32,700 |
| Western Co. of North America | 9.3 | 95,750 |
| Westinghouse Electric Corp. | 3.7 | 44,900 |
| Westmoreland Coal Co. | 5.6 | 68,100 |
| Westvaco Corp. | 1.9 | 200 |
| Weyerhaeuser Co | 16.7 | 206,480 |
| Whirlpool | 7.4 | 60,400 |
| White Consolidated Industries, | 1.9 | 50,100 |
| White Motor Corp. | 1.9 | 100 |
| Wiley (John) & Sons | 1.9 | 56,400 |
| Williams Cos. | 3.7 | 300 |
| Winns Stores, Inc. | 1.9 | 64,000 |
| Wisconsin Electric Power Co. | 5.6 | 38,200 |
| Woolworth (F.W.) Co. | 3.7 | 20,300 |
| Woodhead (Daniel), Inc. | 1.9 | 86,250 |
| W. R. Grace & Co. | 1.9 | 400 |
| Xerox | 31.5 | 177,845 |
| Yellow Freight Systems, Inc. | 3.7 | 84,900 |
| Zapata Corp. | 3.7 | 226,354 |

# The favorite fifty

| Stock | Rank 1980 | Rank 1979 | % of Respondents Holding | No. of shares Held |
|---|---|---|---|---|
| IBM | 1 | 1 | 86.7 | 596,072 |
| Atlantic Richfield | 2 | 9 | 55.6 | 318,000 |
| AT&T | 3 | 2 | 50.0 | 468,105 |
| Exxon Corp. | 4 | 3 | 46.3 | 482,989 |
| Schlumberger, Ltd. | 5 | 19 | 37 | 124,450 |
| General Electric Co. | 6 | 4 | 35.2 | 350,562 |
| Philip Morris | 7 | 7 | 33.3 | 426,190 |
| Standard Oil of Indiana | 8 | 21 | 33.3 | 247,599 |
| K-Mart Corp. | 9 | 8 | 31.5 | 593,196 |
| Caterpillar Tractor Co. | 10 | 15 | 31.5 | 316,487 |
| Xerox Corp. | 11 | 13 | 31.5 | 177,845 |
| Standard Oil of California | 12 | 33 | 31.5 | 141,000 |
| American Home Products Corp. | 13 | 18 | 29.6 | 227,650 |
| Phillips Petroleum | 14 | 11 | 29.6 | 203,700 |
| Dow Chemical Co. | 15 | 23 | 27.8 | 585,516 |
| Eastman Kodak Co. | 16 | 6 | 27.8 | 297,908 |
| Raytheon Co. | 17 | — | 27.8 | 140,000 |
| Halliburton Co. | 18 | 28 | 24.1 | 104,600 |
| Proctor & Gamble Co. | 19 | 30 | 24 | 82,955 |
| Minnesota Mining & Manufacturing | 20 | 17 | 22.2 | 258,031 |
| General Motors Corp. | 21 | 32 | 22.2 | 211,209 |
| Motorola, Inc. | 22 | — | 22.2 | 199,962 |
| Citicorp | 23 | 5 | 22.2 | 172,500 |
| Digital Equipment Corp. | 24 | — | 22.2 | 141,400 |
| SmithKline Corp. | 25 | — | 22.2 | 133,500 |
| Merck & Co. | 26 | 10 | 22.2 | 91,410 |
| Coca-Cola Co. | 27 | 22 | 22.2 | 92,150 |
| Union Pacific Corp. | 28 | — | 22.2 | 68,500 |
| Beatrice Foods Co. | 29 | — | 20.4 | 690,475 |
| Emerson Electric Co. | 30 | 24 | 20.4 | 244,400 |
| Johnson & Johnson | 31 | — | 20.4 | 205,529 |
| Dressler Industries | 32 | — | 20.4 | 120,500 |
| Burroughs Corp. | 33 | 14 | 20.4 | 102,900 |
| UAL, Inc. | 34 | — | 20.4 | 1,300 |
| Georgia Pacific Corp. | 35 | 31 | 18.5 | 360,808 |
| Boeing Co. | 36 | — | 18.5 | 221,900 |
| J. P. Morgan | 37 | — | 18.5 | 174,100 |
| Conoco, Inc. | 38 | — | 18.5 | 148,400 |
| Baker International | 39 | — | 18.5 | 146,701 |
| J. C. Penney Co. | 40 | — | 16.7 | 725,500 |
| Hughes Tool Co. | 41 | — | 16.7 | 252,650 |
| Weyerhaeuser Co. | 42 | — | 16.7 | 206,480 |
| Pepsico, Inc. | 43 | 16 | 16.7 | 188,421 |
| Union Oil of California | 44 | — | 16.7 | 140,800 |
| Getty Oil Co. | 45 | — | 16.7 | 94,500 |
| Standard Oil of Ohio | 46 | — | 16.7 | 76,747 |
| Colgate Palmolive Co. | 47 | 42 | 14.8 | 446,870 |
| Chesebrough Ponds, Inc. | 48 | — | 14.8 | 218,800 |
| Monsanto Co. | 49 | — | 14.8 | 202,427 |
| Gulf Oil Corp. | 50 | 27 | 14.8 | 155,288 |

# The drop-outs

Albertson's, Inc.
American Security & Trust
Bassett Furniture Industries
Beverly Enterprises
Brown Group
Burns (R.L.) Group
Cafeterias, Inc.
Canadian Superior Oil
Carrier Corp.
Chemical N.Y. Corp.
Chart House
Cherry Elect. Products
Chicago Bridge & Iron Co.
Coleman Co.
Combined Communications
Commerce Clearing House
Compugraphic Corp.
Computer Automation
Computer Communications
Communications Satellite
Comten, Inc.
Cordis Corp.
Corroon & Black
Covington Brothers
Crush Int.
Cullinane
Cullum Cos.
Dictaphone Corp.
Donnelley & Sons Co.
Dun & Bradstreet Cos., Inc.
Eagle-Picher Industries
Employee Benefit, Inc.
Entenmanns, Inc.
First United Bancorporation
Fischbach & Moore, Inc.
Fischer Scientific
Fluke (John) Manufacturing
Fort Howard Paper
Friendly Ice Cream
General Exploration
General Public Utilities
General Refractories
Gordon Jewelry
Graco, Inc.
Grantree Corp.
Gray Drug Stores
Hall (Frank S.) & Co.
Hanna Mining
Harvey Hubbell, Inc.
Houdaille Industries
Houston Oil & Minerals
Hunt Manufacturing
Int. Multifoods
Itel Corp.
Jerrico, Inc.
Jostens, Inc.
Knogo Corp.
Loehmanns, Inc.
Longs Drug Stores
Mallory (P.R.) & Co.
Mallinckrodt, Inc.
Malone & Hyde
Marley Co.
Mattel, Inc.
McCormick & Co.
Medenco, Inc.
Mercantile Bankshares
Mission Insurance Group, Inc.
Modern Merchandising
Mount Vernon Mills
MSI Data
National Airlines
National Steel
Newport Pharmaceuticals, Inc.
Numac Oil & Gas Ltd.
Pacific Petroleum
Pacific Telephone & Telegraph Co.
Pneumo Corp.
Purolator, Inc.
Rainier Bancorporation
Rollins, Inc.
Rollins Burdick Hunter
Rubbermaid, Inc.
Rust Craft Greeting Cards
Siebels Bruce Group, Inc.
Siebens Oil & Gas
Skaggs Cos
Southern Union
Spector Industries, Inc.
Standard Register
Stewart Sandwiches
Toro Co.
Total Petroleum N.A., Ltd.
TransUnion
Tropicana Products, Inc.
UNC Resources
United Financial Corp.
UV Industries
Valley National Bank of Arizona
Victoria Stations, Inc.
Wallace-Murray
Welltech, Inc.
Western Publishing Co., Inc.
Wheelabrator-Frye
Wiltech, Inc.
Zenith National Insurance
Zenith Radio

# The drop-ins

ACF Industry, Inc.
Acme Cleveland Corp.
Airborne Freight
Alberta Gas Trunk Line, Ltd.
Alco Standard Co.
Alexander & Baldwin, Inc.
American Quasar Petroleum Co.
Ametek, Inc.
Ampex Common
Anglo Co., Ltd.
Apache Corp.
Arts Way Manufacturing Co.
Augat, Inc.
Automatic Switch Co.
Avantek, Inc.
Baldor Electric
Belco Petroleum Corp.
Bergen Brunswig
Bio-Rad Labs
Biochem Int., Inc.
Biomedical Reference Labs
Brenda Mines, Ltd.
Brockway Glass Co.
Brunswick Corp.
Caldor, Inc.
Central Louisiana Energy
Centran Corp.
Champion Spark Plug Co.
Charter N.Y. Corp.
Columbia Gas System, Inc.
Communications Industries, Inc.
Community Psychiatric Centers
Computer Sciences Corp.
Comshare, Inc.
Consolidated Foods Corp.
Continuous Curve Contact Lenses, Inc.
Core Industries
Cray Research, Inc.
Cross & Trucker Co.
Crutcher Resources
Datapoint Corp.
Dean Foods Co.
Diebold
Dillingham
Dorchester Gas Corp.
Eastern Gas Fuel Associates
El Paso Co.
Employers Casualty Co.
Ethyl Corp.
Ex-Cello-O
Farmers Group, Inc.
Federal Express
Florida Power & Light Co.
Frontier Airlines, Inc.
Gannett Co.
General Automotive Parts
General Dynamics Corp.
General Instruments Corp.
Geosource
GK Technologies
Global Marine
Gulf Canada Ltd.
Haemonetics, Inc.
Harcourt Brace Jovanovich, Inc.
Harland (John) Co.
Harsco Corp.
Harte Hanks
Health-Tex, Inc.
Heinz (H. J.) Co.
Heizer Corp.
Hershey Foods Corp.
Ideal Basic Industries
Instrumentation Laboratory
Intersil Common
Jewel Cos., Inc.
Kellogg Co.
Kevex Corp.
Keystone Int., Inc.
Kroy Industries, Inc.
LaQuinta Motor Inns, Inc.
Lancanna Mining Corp.
Leaseway Transportaton
Lenox, Inc.
Liberty Corp.
Lindberg Corp.
Lockheed Corp.
Macy (R. H.) & Co.
Masonite Corp.
May Petroleum, Inc.
MCA, Inc.
McFarland Energy

# The drop-ins

McMoran Oil & Gas Co.
Measurex Corp.
Medtronic, Inc.
Merland Explorations, Ltd.
Metpath, Inc.
MGIC Investment Corp.
Microdyne Corp.
Midland Ross Corp.
Miller-Wohl Co., Inc.
Monarch Capital Corp.
Moran Brothers, Inc.
MTS Systems Corp.
Murphy Oil Corp.
National Data Corp.
National Distillers & Chemical Corp.
Norcen Energy Resources, Ltd.
Nordstrom, Inc.
Norton Simon, Inc.
Ocean Drilling & Exploration Co.
Ocean Oil & Gas Co.
Ocelot Industries, Ltd.
Overseas Shipholding Group, Inc.
Owens-Illinois, Inc.
Paccar, Inc.
Pacific Northwest Bell Corp.
Palm Beach, Inc.
Peavey Co.
Pennwalt Corp.
Philadelphia Suburban Corp.
Pic 'N' Save Corp.
Precision Castparts Corp.
Printronix, Inc.
Pulte Home
Puritan Bennett Corp.
Quality Care, Inc.
Republic Steel Corp.
Reynolds Metals Corp.
Robinson Nugent, Inc.
Ryland Group, Inc.
Sabine Corp.
Safety Kleen Corp.
Sanders Associates, Inc.
Santa Fe International Corp.
Scoa Industries, Inc.
Scott Paper Co.
Seagram Co., Ltd.
Sealed Power Corp.
Sensormatic Electronics Corp.
Sequoia Capital II
Shared Medical Systems Corp.
Spectra-Physics, Inc.
Standard Pacific
Storer Broadcasting
Sun Oil Co.
Sysco Corp.
Taft Broadcasting Co.
Tandem Computers, Inc.
Tech, Ltd.
Teleco Oilfield Services, Inc.
Teradyne, Inc.
Texaco Canada, Inc.
Thiokol Corp.
Tidewater, Inc.
Timken Co.
Todd Shipyards Corp.
Transway Int. Corp.
Triad Systems Corp.
Trimac, Ltd.
Turbo Resources, Ltd.
Tyco Labs, Inc.
United Energy Resources
United Keno Mines, Ltd.
U.S. Bancorporation
United States Gypsum Co.
U.S. Surgical Corp.
Utah Power & Light Co.
Vallen Corp.
Van Dusen Air, Inc.
Varian Associates
Vermont American Corp.
Walgreen Co.
Wang Labs, Inc.
Waters Associates, Inc.
Watkins Johnson
Weatherford Int., Inc.
Weis Markets, Inc.
Weldwood of Canada
Western Casualty & Surety Co.
White Consolidated Industries, Inc.
Winns Stores, Inc.
Zapata Corp.

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AUGUST 1980

# Pension World

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## United Technologies beams a $2.3 billion pension fund

## An investment manager views the eighties

## Seventh Annual Survey of State Retirement Systems

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August 1980

# Pension World

Volume 16, Number 8

The Magazine for Plan Sponsors / *A Publication of Communication Channels, Inc.*

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Pension World

BPA

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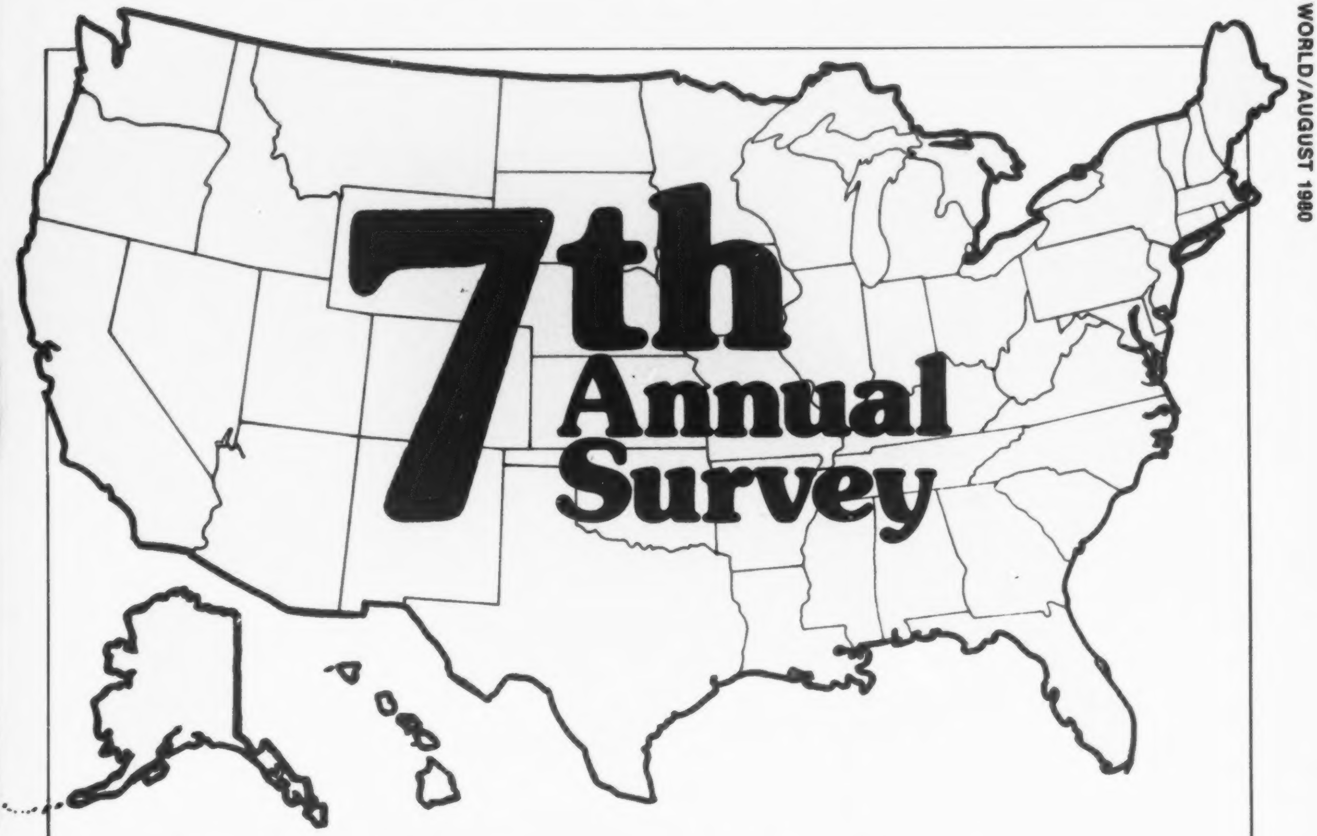

# 7th Annual Survey

# State Retirement Systems

Every state is represented in *Pension World's* 1980 State Retirement Survey. Though figures from a few individual systems were not available, each state is represented by at least one system.

Many funds have significantly increased their use of external advisers since last year; 26 percent of the systems reporting from last year added for the first time or increased their use of investment advisers. Some of these have no actual investment authority, but many are managers for the equities and/or fixed-income portfolios.

Several funds have made dramatic gains: the Florida, Indiana, Montana and New Mexico public retirement systems and the Texas teachers fund increased holdings, on a dollar for dollar basis, by more than 25 percent, while Colorado, Mississippi and Tennessee increased holdings by more than 30 percent.

Several points are worth noting for accurate interpretation of the data:

- All figures are at cost, unless otherwise noted, and are based on completed responses to the *Pension World* survey.
- Investments included in the "Other" category, where itemized by individual systems, include special state savings certificates, receivables, dividends, Canadian bonds, all foreign instruments, internal loans to employees, GIC's and real property.
- Where individual breakdowns were available, government-insured mortgages have been included in the "Mortgage" category; however, several states noted that these mortgages were lumped under their figures for "U.S. Government Securities."

| Name & Address of fund | Contact person | Total assets (in millions) | Common stock (in millions) | Preferred stock (in millions) | U.S. Govt. securities (in mills) |
|---|---|---|---|---|---|
| **The Retirement Systems of Alabama**<br>135 South Union Street<br>Montgomery, AL 36130<br>205/832-4140 | David G. Bronner<br>Secretary-Treasurer | $ 2,000 | $ 58 | $ | $ 380 |
| **Alaska Public Employees Retirument System**<br>Department of Revenue, Treasury Division<br>Pouch SB<br>Juneau, AK 99811<br>907/465-2351 | Anselm Staack<br>Treasury Comptroller | 386.0 | 40.6 | | 82.9 |
| **Alaska Teachers Retirement System**<br>Department of Revenue, Treasury Division<br>Pouch SB<br>Juneau, AK 99811<br>907/465-2351 | Anselm Staack<br>Treasury Comptroller | 309.7 | 45.0 | | 86.7 |
| **Arizona Public Safety Personnel Retirement System**<br>3033 North Central Avenue<br>Phoenix, AZ 85012 | Lowell Sutton<br>Administrator | 304.7 | 78.1 | | 15.4 |
| **Arizona State Retirement System**<br>P.O. Box 33910<br>Phoenix, AZ 85067<br>602/255-5131 | Max Sullivan<br>Director | 1,477.9 | 305.2 | 1.9 | 285.4 |
| **Arkansas Public Employees Retirement System**<br>One Capitol Mall<br>Little Rock, AR 72201<br>501/371-1435 | Fred E. Henne<br>Executive Director | 342 | 20 | | 36 |
| **Arkansas State Highway Employees Retirement System**<br>P.O. Box 2261<br>Little Rock, AR 72203 | J. E. McCarthy<br>Executive Secretary | 65.8 | 5.6 | | 12.5 |
| **Arkansas State Police Retirement System**<br>One Capitol Mall<br>Little Rock, AR 72201<br>501/371-1485 | Fred E. Henne<br>Executive Secretary | 16.8 | | | 3.3 |
| **Arkansas Teacher Retirement System**<br>Education Annex, State Capitol Grounds<br>Little Rock, AR 72201<br>501/371-1517 | Dwight Goodwin<br>Assistant Director<br>for Investments | 452 | 66 | | 26 |
| **California Legislators Retirement System**<br>1416 Ninth Street, Room 642<br>Sacramento, CA 95814<br>916/445-7700 | Curtis D. Ishii<br>Management Services<br>Technician | 34.8 (bk.) | 8.1 (bk.) | .5 (bk.) | |
| **California Public Employees Retirement System**<br>1416 Ninth Street, Room 642<br>Sacramento, CA 95814<br>916/445-7700 | Curtis D. Ishii<br>Management Services<br>Technician | 11,962.2 (bk.) | 2,693.0 (bk.) | 29.7 (bk.) | 816.7 (bk.) |
| **California State Teachers Retirement System**<br>1416 Ninth Street, Room 642<br>Sacramento, CA 95814<br>916/445-7700 | Curtis D. Ishii<br>Management Services<br>Technician | 6,765.7 (bk.) | 1,040.7 (bk.) | 1.7 (bk.) | 624.9 (bk.) |
| **Public Employees Retirement Association of Colorado**<br>1300 Logan Street<br>Denver, CO 80203<br>303/832-9550 | Joseph P. Natale<br>Executive Secretary | 1,942.3 | 345.6 | | 206.4 |
| **Connecticut State Retirement Systems**<br>20 Trinity Street<br>Hartford, CT 06115<br>203/566-2126 or 566-3270 | Lee Van Meter<br>Deputy Treasurer<br>of Investments | 1,189 (mkt.) | 441 (mkt.) | | |
| **Delaware State Employees Retirement Fund**<br>Office of Pensions<br>Thomas Collins Building<br>P.O. Box 1401<br>Dover, DE 19901<br>302/736-4208 | Donald McArdle<br>Administrator | 206.8 (mkt.)<br>196.7 (bk.) | 97 7 (mkt.) | .5 (mkt.) | 19.2 (mkt.)<br>19.0 (bk.) |
| **Florida Retirement System Trust Fund**<br>Division of Retirement<br>Room 530<br>Carlton Building<br>Tallahassee, FL 32304 | A. J. McMullian, III<br>State Retirement<br>Director | 3,700 | 240 | | 176 |
| **Georgia State Retirement Systems**<br>2 Northside 75<br>Atlanta, GA 30318<br>404/656-2151 | Graham R. Lynch<br>Director, Division of<br>Investment Services | 2,337 | 653 | | 392 |
| **Employees Retirement System of the State of Hawaii**<br>888 Mililani Street, Suite 502<br>Honolulu, HI 96813 | Stanley Siu<br>Administrator | 1,144.1 | 169.8 | 1.3 | 245.3 |
| **Public Employee Retirement System of Idaho**<br>State House<br>Boise, ID 83720<br>208/384-3365 | T. F. Terrell<br>Executive Director | 264<br>258 (mkt.) | 97<br>95 (mkt.) | 5<br>4 (mkt.) | 19<br>18 (mkt.) |

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| Corporate bonds (in millions) | Mortgages (in millions) | Cash and short-term securities (in millions) | Other (in millions) | Reporting date | Investment advisers |
|---|---|---|---|---|---|
| $1,320 | $ | $140 | $ 80 | 9/30/79 | Internal Administration |
| 33.3 | 140.3 | 86.9 | | 4/30/80 | Internal Administration/Alliance Capital Management Corp.; Morgan Guaranty |
| 26.6 | 122.0 | 49.2 | .2 | 4/30/80 | Internal Administration/Alliance Capital Management Corp.; Morgan Guaranty |
| 159.1 | | 50.4 | 1.7 | 6/30/79 | Internal Administration |
| 348.7 | 90.2 | 446.5 | | 6/30/79 | Bernstein-Macaulay, Inc.; First Pennsylvania Bank; Funds Advisory Company; INVESCO Capital Management, Inc.; Kemper Financial Services, Inc.; Scudder, Stevens & Clark, Inc.; Valley National Bank |
| 209 | 64 | 10 | 3 | 3/31/80 | Loomis, Sayles & Company |
| 43.9 | | 0.9 | 1.4 | 3/31/80 | Loomis, Sayles & Company |
| 11.2 | 2.6 | .7 | 1 | 3/31/80 | Loomis, Sayles & Company |
| 127 | 45 | 178 | | 5/5/80 | Oppenheimer Capital Corporation |
| 8.6 (bk.) | 16.5 (bk.) | .8 (bk.) | .3 (bk.) | 12/31/79 | Internal Administration |
| 4,535.0 (bk.) | 2,970.0 (bk.) | 436.8 (bk.) | 471.3 (bk.) | 12/31/79 | Internal Administration |
| 2,823.5 (bk.) | 1,748.7 (bk.) | 230.0 (bk.) | 296.2 (bk.) | 12/31/79 | Internal Administration |
| 1,001 | 236.7 | 98.8 | 53.8 | 6/30/79 | Internal Administration/Alliance Capital Management Corp. |
| 746 (mkt.) | | | | 3/31/80 | David L. Babson & Company, Inc.; Connecticut Bank & Trust; Bernstein-Macaulay, Inc.; Capital Guardian Trust Co.; National Investment Services of America; Scudder, Stevens & Clark; Harris Trust |
| 9.7 (mkt.)<br>9.4 (bk.) | | 44.0 (mkt.)<br>42.3 (bk.) | 35.1 (mkt.)<br>33.8 (bk.) | 6/30/79 | Internal Administration/Delphi Management, Inc. |
| 2,907 | | 377 | | 3/31/80 | Internal Administration |
| 1,166 | 49 | 58 | 19 | 3/31/80 | Citizens & Southern National Bank; First National Bank of Atlanta |
| 329.1 | 331.3 | 43.8 | 23.8 | 6/30/79 | Delaware Investment Advisers; Safeco Asset Management; Bankers Trust; Scudder, Stevens & Clark, Inc.; Pacific Investment Management Co., Fayez Sarofim & Co.; Bernstein-Macaulay, Inc. |
| 83<br>79 (mkt.) | 8<br>8 (mkt.) | 32<br>32 (mkt.) | 22<br>23 (mkt.) | 6/30/79 | Alliance Capital Management Corp.; Bank of Idaho, N.A.; Equitable Life Assurance Society; First Security Bank of Idaho; Idaho Bank and Trust Company; Idaho First National Bank; Prudential Insurance Co.; Trident Investment Mgmt. |

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| Name & Address of fund | Contact person | Total assets (in millions) | Common stock (in millions) | Preferred stock (in millions) | U.S. Govt. securities (in mills) |
|---|---|---|---|---|---|
| **Illinois State Board of Investments General Assembly Fund, Judges Retirement Fund, State Employees Retirement System Fund**<br>180 North LaSalle<br>Chicago, IL 60602<br>312/793-5718 | Robert Harmon<br>Director | $841.8 (mkt.) | $144.4 (mkt.) | $1.1 (mkt.) | $195.3 (mkt.) |
| **State Universities Retirement System of Illinois**<br>50 Gerty Drive<br>Champaign, IL 61820<br>217/333-3860 | Charles M. Hundley<br>Assistant Director | 809.0 | 348.2 | | 95.2 |
| **Teachers Retirement System of the State of Illinois**<br>P.O. Box 4067<br>2815 West Washington<br>Springfield, IL 62708<br>217/753-0311 | Roy A. Baker<br>Director | 2,404 | 668 | | 566 |
| **Indiana Judges Retirement System**<br>143 West Market Street, #800<br>Indianapolis, IN 46204<br>317/633-4000 | C. Philip Barnes<br>Assistant Executive Secretary | 5.6 | | | 5.6 |
| **Indiana Public Employees Retirement Fund**<br>800 Harrison Building<br>143 West Market Street<br>Indianapolis, IN 46204 | Harold J. Egenes<br>Executive Secretary | 674.2 | | | 113.3 |
| **Indiana State Police Pension Fund**<br>242 State House<br>Indianapolis, IN 46204<br>317/232-6388 | W. A. Owen<br>Investment Adviser | 39.2 | | | .3 |
| **Indiana State Teachers Retirement Fund**<br>506 State Office Building<br>Indianapolis, IN 46204<br>317/633-6582 | Edmond G. Niehoff<br>Assistant Executive Secretary | 466 | | | 93 |
| **Iowa Peace Officers Retirement System**<br>State Treasurer's Office<br>State Capitol Building<br>Des Moines, IA 50319<br>515/281-5369 | Roger G. Barnett<br>Deputy Treasurer of State | 20 | 1.5 | | 4.7 |
| **Iowa Public Employees Retirement System**<br>1000 East Grand Avenue<br>Des Moines, IA 50319 | Edward R. Longnecker<br>Administrator | 1,239 | 112 | | 278 |
| **Kansas Public Employees Retirement System**<br>400 First National Bank Tower<br>One Townsite Plaza<br>Topeka, KS 66603<br>913/296-3921 | John K. Corkhill<br>Executive Secretary | 754.8 (mkt.) | 232.1 (mkt.) | 1.2 (mkt.) | 95.2 (mkt.) |
| **Kentucky Judicial Retirement System**<br>P.O. Box 791<br>Frankfort, KY 40602<br>502/564-5310 | Robert K. Cullen<br>Manager | 19.3 (mkt.) | 11.5 (mkt.) | .6 (mkt.) | 4.1 (mkt.) |
| **Kentucky Retirement Systems**<br>226 West Second Street<br>Frankfort, KY 40601 | Mim C. Clark<br>General Manager | 640 | 167.2 | | 226.2 |
| **Kentucky Teachers Retirement System**<br>216 West Market Street<br>Frankfort, KY 40601<br>502/564-3266 | Pat N. Miller<br>Executive Secretary | 846.0 | 134.4 | | 399.2 |
| **Municipal Employees Retirement System of Louisiana**<br>6750 Van Gogh Avenue<br>Baton Rouge, LA 70806 | Janie Sue Byrd<br>Administrative Dir. | 41.1 | | | 15.2 |
| **Louisiana School Employees Retirement System**<br>P.O. Box 44516<br>Baton Rouge, LA 70804 | J. Michael Dodds, III<br>Assistant Secretary-Treasurer | 194 | 4 | 1 | 47 |
| **Louisiana School Lunch Employees Retirement System**<br>9131 Interline Avenue<br>Building C, 2nd Floor<br>Baton Rouge, LA 70809<br>504/925-6476 | Shirlyn Kees<br>Assistant Secretary-Treasurer | 27.5 (bk.) | .01 (bk.) | .05 (bk.) | 7.8 (bk.) |
| **Louisiana State Employees Retirement System**<br>P.O. Box 44213<br>Baton Rouge, LA 70804 | Vernon L. Strickland<br>Director | 771.8 | 44.0 | 31.8 | 289.3 |
| **Louisiana State Police Pension & Retirement Fund**<br>P.O. Box 66614<br>Baton Rouge, LA 70896 | Richard J. Maciasz<br>Manager | 7.8 | | | 2.2 |
| **Teachers Retirement System of Louisiana**<br>P.O. Box 44123<br>Capitol Station<br>Baton Rouge, LA 70804 | Jennifer Netterville<br>Investment Portfolio Specialist | 1,300 | 21 | 2 | 299 |

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| Corporate bonds (in millions) | Mortgages (in millions) | Cash and short-term securities (in millions) | Other (in millions) | Reporting date | Investment advisers |
|---|---|---|---|---|---|
| $ 242.6 (mkt.) | $ | $ .2 (mkt.) | $ 32.6 (mkt.) | 6/30/79 | Internal Administration |
| 301.4 | | 57.4 | 6.8 | 4/30/80 | Harris Trust |
| 1,067 | 23 | 36 | 54 | 3/31/80 | Springfield Marine Bank |
| | | | | 3/31/80 | Internal Administration |
| 300.[illegible] | 117 | 93.5 | | 3/31/80 | Indiana National Bank; American Fletcher National Bank |
| | | 35.6 | 3.3 | 4/30/80 | Internal Administration |
| 118 | 133 | 60 | 14 | 6/30/79 | American Fletcher National Bank; Indiana National Bank; Alliance Capital Management Corp.; Bank of New York |
| 8.8 | 2.1 | 3.0 | | 4/30/80 | Loomis, Sayles & Company |
| 558 | 68 | 176 | 47 | 3/31/80 | Internal Administration/Boston Co.; Alliance Capital Management Corp.; Capital Guardian Trust |
| 135.9 (mkt.) | | 284.5 | 5.9 | 3/31/80 | Oppenheimer Capital Corp.; Capital Supervisors; Investment and Capital Management; Montag and Caldwell; Reimer & Koger and Associates; Fourth National Bank |
| 1.4 (mkt.) | | 1.7 (mkt.) | | 4/30/80 | First Kentucky Investment Advisors |
| 52 | 16.5 | 125.2 | 52.9 | 3/31/80 | Capital Supervisors, Inc. |
| 204.6 | 64.6 | 43.2 | | 4/30/80 | Todd Investment Advisors; Alliance Capital Management Corp. |
| 14.1 | .2 | 11.6 | | 4/30/80 | Fidelity National Bank of Baton Rouge |
| 115 | | 26 | 2 | 6/30/79 | Hibernia National Bank |
| 14 (bk.) | | 5.0 (bk.) | 1.6 (bk.) | 6/30/79 | Hibernia National Bank |
| 203.1 | 31.2 | 163.3 | 9.2 | 4/30/80 | Todd Investment Advisors |
| 3.5 | | .9 | 1.2 | 6/30/79 | Hibernia National Bank |
| 785 | 3 | 157 | 19 | 12/31/79 | Scudder, Stevens, & Clark; Hibernia National Bank |

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| Name & Address of fund | Contact person | Total assets (in millions) | Common stock (in millions) | Preferred stock (in millions) | U.S. Govt. securities (in mills) |
|---|---|---|---|---|---|
| **Maine State Retirement System**<br>State Office Building<br>Augusta, ME 04333<br>207/289-3461 | William G. Blodgett<br>Executive Director | $ 263.8 | $ 105.7 | $ | $ 52.4 (bk.)<br>51.2 (mkt.) |
| **Maryland State Retirement Systems**<br>State Office Center<br>Baltimore, MD 21202 | Howard J. France<br>Investment Adm. | 2,319.2 | 766.7 | | 183.5 |
| **Commonwealth of Massachusetts State Employees Annuity Fund**<br>State Treasurers Office<br>Room 1203<br>1 Ashburton Place<br>Boston, MA 02108<br>617/727-2010 | Philip D. Kett<br>Chief Investment Officer | 712.5 | 64.2 (bk.) | | 161.5 |
| **Commonwealth of Massachusetts State Teachers Annuity Fund**<br>State Treasurers Office<br>Room 1203<br>1 Ashburton Place<br>Boston, MA 02108<br>617/727-2010 | Philip D. Kett<br>Chief Investment Officer | 841.9 | 65 (bk.) | | 216.5 |
| **Michigan Judges Retirement Fund**<br>Department of Treasury<br>P.O. Box 15128<br>Lansing, MI 48901<br>517/373-3140 | William A. Ammerman<br>Director of Investments | 23.9 (mkt.) | 3.6 (mkt.) | .1 (mkt.) | 7.7 (mkt.) |
| **Michigan Legislative Retirement Fund**<br>P.O. Box 30036<br>Lansing, MI 48909 | Thomas G. Baker<br>Administrator | 17 (mkt.) | .2 (mkt.) | | 3.5 (mkt.) |
| **Michigan Municipal Employees Retirement System**<br>P.O. Box 30026<br>Lansing, MI 48909<br>517/373-0001 | Kenneth E. Recker<br>Finance Director | 349.4 (bk.)<br>302.8 (mkt.) | 46.7 (bk.)<br>46.0 (mkt.) | | 94.3 (bk.)<br>74.2 (mkt.) |
| **Michigan Probate Judges Retirement Fund**<br>Department of Treasury<br>P.O. Box 15128<br>Lansing, MI 48901<br>517/373-3140 | William A. Ammerman<br>Director of Investments | 5.4 (mkt.) | 1.1 (mkt.) | | .9 (mkt.) |
| **Michigan Public School Employees Chapter I Retirement Fund**<br>Department of Treasury<br>P.O. Box 15128<br>Lansing, MI 48901<br>517/373-3140 | William A. Ammerman<br>Director of Investments | 2,831.5 (mkt.) | 509.9 (mkt.) | 2.1 (mkt.) | 318.9 (mkt.) |
| **Michigan Public School Employees Chapter II Retirement Fund**<br>Department of Treasury<br>P.O. Box 15128<br>Lansing, MI 48901<br>517/373-3140 | William A. Ammerman<br>Director of Investments | 360.6 (mkt.) | 25.4 (mkt.) | 1.4 (mkt.) | 31.0 (mkt.) |
| **Michigan State Employees Retirement Fund**<br>Department of Treasury<br>P.O. Box 15128<br>Lansing, MI 48901<br>517/373-3140 | William A. Ammerman<br>Director of Investments | 934.7 (mkt.) | 163.9 (mkt.) | .8 (mkt.) | 106.9 (mkt.) |
| **Michigan State Police Pension, Accident & Disability Fund**<br>Department of Treasury<br>P.O. Box 15128<br>Lansing, MI 48901<br>517/373-3140 | William A. Ammerman<br>Director of Investments | 79.6 (mkt.) | 10.7 (mkt.) | | 20.7 (mkt.) |
| **Minnesota State Board of Investment**<br>55 Sherburne Avenue — Room 105<br>St. Paul, MN 55155<br>612/296-3328 | Jonathan P. White<br>Executive Secretary | 2,940 | 1,263 | | 24.7 |
| **Mississippi Deferred Compensation Fund**<br>Public Employees Retirement System of Mississippi<br>1704 Sillers State Office Bldg.<br>Jackson, MS 39201<br>601/354-6737 | Fred Walker<br>Executive Secretary<br>Charles D. Wilkinson<br>Investment Manager | 8.3 | | | 4.3 |
| **Mississippi Highway Safety Patrol Retirement Fund**<br>1704 Sillers State Office Building<br>Jackson, MS 39201<br>601/354-6737 | Fred Walker<br>Executive Secretary<br>Charles D. Wilkinson<br>Investment Manager | 26.9 | | | 7.3 |
| **Public Employees Retirement System of Mississippi**<br>1704 Sillers State Office Building<br>Jackson, MS 39201<br>601/354-6737 | Fred Walker<br>Executive Secretary<br>Charles D. Wilkinson<br>Investment Manager | 890.6 | | | 451.5 |
| **Missouri Highway Employees & Hwy. Patrol Retirement System**<br>P.O. Box 270<br>Jefferson City, MO 65102<br>314/751-2551 | Irene Wollenberg<br>Secretary to Board of Trustees | 82.0 | 26.9 | .9 | 24.1 |

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| Corporate bonds (in millions) | Mortgages (in millions) | Cash and short-term securities (in millions) | Other (in millions) | Reporting date | Investment advisers |
|---|---|---|---|---|---|
| $ 58.7 (bk.)<br>57.8 (mkt.) | $ 6.4 | $13.1 | $ 27.5 | 6/30/79 | Alliance Capital Management Corp.; David L. Babson & Co.; Massachusetts Financial Services; Merchants National Bank of Bangor; Merrill Trust Co.; Morgan Guaranty Trust Co.; Putnam Advisory Co.; The Travelers Insurance Co. |
| 994.4 | 62.7 | 310.0 | 1.9 | 3/31/80 | Internal Administration |
| 440 | | 32 | 14.4 | 4/30/80 | Internal Administration |
| 496.6 | | 44.6 | 18.9 | 4/30/80 | Internal Administration |
| 8.5 (mkt.) | .1 (mkt.) | 3.6 (mkt.) | | 4/30/80 | Internal Administration |
| 9.9 (mkt.) | | 3.3 (mkt.) | | 4/30/80 | Internal Administration |
| 112.9 (bk.)<br>92.0 (mkt.) | 46.7 (bk.)<br>46.0 (mkt.) | 63.0 (bk.)<br>64.0 (mkt.) | 14.0 (bk.)<br>9.8 (mkt.) | 3/31/80 | Internal Administration/Alliance Capital Management Corp.; American General Capital Management, Inc.; Investment & Capital Management Corp. |
| 2.1 (mkt.) | | 1.1 | | 4/30/80 | Internal Administration |
| 1,087.6 (mkt.) | 416.1 (mkt.) | 480.8 (mkt.) | 15.7 (mkt.) | 4/30/80 | Internal Administration |
| 126.8 (mkt.) | 71.3 (mkt.) | 41.7 (mkt.) | 62.8 (mkt.) | 4/30/80 | Internal Administration |
| 347.5 (mkt.) | 149.0 (mkt.) | 162.3 (mkt.) | 4.1 (mkt.) | 4/30/80 | Internal Administration |
| 29.4 (mkt.) | 2.3 (mkt.) | 15.3 (mkt.) | .9 (mkt.) | 4/30/80 | Internal Administration |
| 670 | 263.3 | 330 | 187 | 3/31/80 | Internal Administration |
| .05 | | 4.0 | | 3/31/80 | Edie Asset Management |
| 12.2 | | 7.4 | | 3/31/80 | Edie Asset Management |
| 403.5 | 4.8 | 30.8 | | 3/31/80 | Edie Asset Management |
| 6.9 | .2 | 10.5 | 12.6 | 3/31/80 | United Missouri Bank of Kansas City |

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| Name & Address of fund | Contact person | Total assets (in millions) | Common stock (in millions) | Preferred stock (in millions) | U.S. Govt. securities (in mills) |
|---|---|---|---|---|---|
| **Public School Retirement System of Missouri**<br>P.O. Box 268<br>Jefferson City, MO 65102<br>314/425-7742 | Warren M. Black<br>Investment Adviser | $ 1,103 | $ 173 | $ | $ |
| **Missouri State Employees Retirement System**<br>900 Leslie Boulevard<br>P.O. Box 209<br>Jefferson City, MO 65102<br>314/751-2342 | Al F. Holmes, Jr.<br>Executive Secretary<br>Gerald T. Heller<br>Accountant | 234 | 53 | | 59 |
| **Public Employees Retirement System Fund of Montana**<br>Room 236, Mitchell Building<br>Helena, MT 59601<br>406/449-2656 | Robert T. Bugni<br>Securities Analyst | 239.6 | 17.3 | | 10.7 |
| **Teachers Retirement System Fund of Montana**<br>Room 236, Mitchell Building<br>Helena, MT 59601<br>406/449-2656 | Robert T. Bugni<br>Securities Analyst | 185.2 | 17.3 | | 8.8 |
| **State of Nebraska Retirement Fund**<br>State Office Building<br>Box 94696<br>Lincoln, NE 65809<br>402/471-2043 | Donald J. Mathes<br>State Investment Officer | 118 | 12.8 | | 48.0 |
| **Nevada Public Employees Retirement System**<br>693 West Nye Lane<br>Carson City, NV 89701<br>702/885-4206 | Mary Matheus<br>Investment Analyst I | 712.2 | 66.4 | 6.2 | 12 |
| **New Hampshire Retirement System**<br>Gloudon Road<br>Concord, NH 03301<br>603/271-2621 | Ray Mills<br>Accountant | 282 | 92 | 1 | 71 |
| **New Jersey Division of Investment**<br>349 West State Street<br>Trenton, NJ 08625<br>609/292-5106 | Roland M. Machold<br>Director | 5,575.2 (bk.)<br>5,040.2 (mkt.) | 1,003.5 (bk.)<br>907.2 (mkt.) | | 836.9 (bk.)<br>756.0 (mkt.) |
| **New Mexico Educational Retirement System**<br>P.O. Box 1029<br>Santa Fe, NM 87503<br>505/827-2818 | Frank Ready<br>Director | 414.7 (bk.) | 43.9 (bk.) | | 70.3 (bk.) |
| **Public Employees Retirement Association of New Mexico**<br>P.O. Box 2123<br>Santa Fe, NM 87501<br>505/827-2818 | Leonard T. Valdes<br>Executive Secretary<br>Ralph Miller<br>Investment Officer | 350.3 | 84.6 | | 88.5 |
| **New York State Common Retirement Fund**<br>Governor A. E. Smith State Office Building<br>Albany, NY 12236<br>518/474-6398 | Madelon Talley<br>Director/Division of Investment & Cash Management<br>William Hay<br>Chief Investment Officer | 11,737.7 (bk.) | 1,864.6 (bk.) | | 4,946.8 (bk.) |
| **New York State Teachers Retirement System**<br>143 Washington Avenue<br>Albany, NY 12210<br>518/447-2666 | Mason Kullman<br>Director of Public Information | 7,034.6 (bk.) | 2,197.7 (bk.) | | 3,061.4 |
| **North Carolina Retirement Systems**<br>325 North Salisbury Street<br>Raleigh, NC 27611<br>919/733-7273 | Christopher S. Moore<br>Deputy Treasurer, Dir. Investment & Banking | 4,215 | 495 | | 977 |
| **North Dakota Public Employees Retirement Systems**<br>P.O. Box 1214<br>Bismarck, ND 58505<br>701/224-2975 | Alan Person<br>Executive Director | 41.5 | 15.2 | | 12.7 |
| **Police & Firemen Disability and Pension Board of Ohio**<br>230 E. Town Street<br>Columbus, OH 43215<br>614/228-4076 | Richard F. Thompson<br>Investment Manager | 833 | 148 | | 124 |
| **Public Employees Retirement System of Ohio**<br>277 E. Town Street<br>Columbus, OH 43215<br>614/466-7320 | Robert A. McLaughlin<br>Investment Officer | 4,842 | 1,154.6 | 18.6 | 281.3 |
| **School Employees Retirement System of Ohio**<br>88 East Broad Street<br>Columbus, OH 43215<br>614/221-7012 | R. Jack Cooper<br>Investment Officer | 899 | 169 | | 20 |
| **The State Teachers Retirement System of Ohio**<br>275 East Broad Street<br>Columbus, OH 43215<br>614/469-9667 | Alan D. Browning<br>Director of Investments | 4,802.9 | 1,710.9 | 1.7 | 268.4 |

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| Corporate bonds (in millions) | Mortgages (in millions) | Cash and short-term securities (in millions) | Other (in millions) | Reporting date | Investment advisers |
|---|---|---|---|---|---|
| $ 783 | $ | $ 31 | $137 | 6/30/79 | St. Louis Union Trust Co.; Research Management Associates |
| 72 | 13 | 35 | 2 | 3/31/80 | St. Louis Union Trust Co.; Research Management Associates |
| 167.8 | 39.0 | 3.0 | 1.0 | 4/30/80 | James R. Howeth<br>Rodney G. Young |
| 118.6 | 38.2 | 2 | .3 | 4/30/80 | James R. Howeth<br>Rodney G. Young |
| 57.2 | | | | 6/30/79 | Internal Administration |
| 384 | 66.8 | 74.4 | 102 | 3/31/80 | Funds Advisory Company |
| 75 | 20 | 23 | | 6/30/79 | David L. Babson & Co. Inc.; Putnam Advisory Co., Inc.; State Street Research & Mgmt. Co.; First National Bank of Boston; Amoskeag National Bank |
| 2,787.6 (bk.)<br>2,520.1 (mkt.) | 557.5 (bk.)<br>504.7 (mkt.) | 384.7 (bk.)<br>352.8 (mkt.) | | 6/30/79 | Internal Administration |
| 202.7 (bk.) | 97.6 (bk.) | | .2 | 3/31/80 | Vaughan, Nelson, Hargrove, Inc. |
| 96.2 | 15.0 | 66.2 | | 4/30/80 | Fiduciary Trust Company of New York |
| 2,121.2 (bk.) | 1,903.7 | 901.4 | | 3/31/80 | Internal Administration/Bank of New York; Chemical Bank; Morgan Guaranty Trust; Dreyfus Management; Alliance Capital Management; Lazard Freres & Company; Oppenheimer Capital Corp.; L. F. Rothschild, Unterberg, Towbin; J. & W. Seligman & Company |
| (bk./combined) | 979.4 (bk.) | 512.7 (bk.) | 283.4 (bk.) | 6/30/79 | Internal Administration/Lionel D. Edie & Co. |
| 2,690 | | 52 | | 3/31/80 | Alliance Capital Management; Thorndike, Doran, Paine & Lewis; Duff & Phelps, Inc. |
| 6.4 | | 7.2 | | 6/30/79 | Wall, Patterson, McGrew & Richards, Inc.; Bank of North Dakota |
| 333 | | 115 | 113 | 3/31/80 | Internal Administration/Alliance Capital Management Corp. |
| 2,786.1 | 42.4 | 185.3 | 373.2 | 1/1/80 | Internal Administration/Scudder, Stevens & Clark |
| 355.2 | 206 | 73 | 75.8 | 3/31/80 | Internal Administration/Bankers Trust Co. |
| 1,281.9 | 1,061.4 | 471.2 | 7.4 | 4/30/80 | Internal Administration |

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| Name & Address of fund | Contact person | Total assets (in millions) | Common stock (in millions) | Preferred stock (in millions) | U.S. Govt. securities (in mills) |
|---|---|---|---|---|---|
| **Teachers Retirement System of Oklahoma**<br>P.O. Box 53524<br>Oklahoma City, OK 73152<br>405/521-2387 | Jo Witt<br>Investment Officer | $453.5 | $52.5 | $ | $75 |
| **Oregon Public Employee Retirement System**<br>1099 S.W. Columbia Street<br>Box 73<br>Portland, OR 97207<br>503/229-5824 | James L. McGoffin<br>Director | 1,754.4 | 775.1 | | 33.1 |
| **Pennsylvania Municipal Retirement System**<br>P.O. Box 1165<br>605-Executive House<br>101 South Second Street<br>Harrisburg, PA 17108<br>717/787-2065 | Robert C. Rosaman<br>Secretary | 42 | 7 | | 5 |
| **Commonwealth of Pennsylvania Public School Employees Retirement System**<br>301 Chestnut Street<br>City Towers<br>Harrisburg, PA 17101<br>717/787-6546 | R. J. McElroy<br>Director, Bureau of Fiscal Control | 4,543.7 | 786.8 | 1.8 | |
| **Pennsylvania State Employees Retirement System**<br>204 Labor and Industry Building<br>Harrisburg, PA 17120<br>717/787-6293 | Robert L. Cusma<br>Secretary | 2,893.8 | 554.9 | 2.2 | 7.2 |
| **State of Rhode Island Employees Retirement System**<br>198 Dyer Street<br>Providence, RI 02903<br>401/277-2203 | Joseph G. Iannelli<br>Executive Director | 348.2 | 79.3 | .4 | 70.6 |
| **South Carolina Retirement System**<br>P.O. Box 11960<br>Columbia, SC 29211<br>803/758-8552 | Grady L. Patterson, Jr.<br>State Treasurer | 1,710 | | | 504 |
| **South Dakota Retirement System**<br>222 East Capitol<br>Pierre, SD 57501<br>605/773-3731 | Al A. Asher<br>Investment Analyst | 203 | 66 | | 82 |
| **Tennessee Consolidated Retirement System**<br>960 Capital Hill Building<br>P.O. Box 2867<br>Nashville, TN 37219<br>615/741-2643 | H. Swift Lipscomb, Jr.<br>Chief Investment Officer | 1,596 | 371.8 | | 524.3 |
| **Employees Retirement System of Texas**<br>P.O. Box 13207<br>Capital Station<br>Austin, TX 78711<br>512/476-6431 | Preston G. Craig<br>Director of the Investment Division | 1,393 | 173 | | 357 |
| **Teacher Retirement System of Texas**<br>1001 Trinity Street<br>Austin, TX 78701<br>512/477-9711 | Leonard Prewitt<br>Executive Secretary | 5,059.6 | 1,439.9 | 9.3 | 2,068.2 |
| **Utah State Retirement Fund**<br>540 East 2nd South<br>Salt Lake City, UT 84102<br>801/355-3884 | Reed E. Gunderson<br>Investment Officer | 830.1 | 166.9 | | 152.8 |
| **Vermont State Retirement System**<br>State Administration Building<br>Montpelier, VT 05602<br>802/828-2305 | Edwin C. Gallison<br>Director of Retirement Services | 85 | 19.3 | .3 | 11 |
| **Virginia Supplemental Retirement System**<br>P.O. Box 6-C<br>Richmond, VA 23214<br>804/786-8807 | Robert H. Daniel<br>Investment Officer | 1,590.1 (bk.) | 524.9 (bk.) | | 416.6 (bk.) |
| **Washington State Finance Committee**<br>Room 314, Insurance Building<br>Olympia, WA 98504<br>206/753-6810 | John Hitchman<br>Executive Secretary, Finance Committee | 2,880 | 670 | | 925 |
| **West Virginia Public Employees Retirement System**<br>Bldg. 5, Room 148, Capitol Complex<br>Charleston, WV 25305<br>304/348-2031 | Lewis N. McManus<br>Executive Secretary | 309.4 | | | 80.2 |
| **Wisconsin Investment Board**<br>244 W. Washington Ave.<br>Madison, WI 53702<br>608/266-2381 | James M. LaFleur<br>Executive Director | 4,030.3 | 1,304.2 | | 1,880.7 |
| **Wyoming Retirement System**<br>3rd Floor, Barrett Bldg.<br>Cheyenne, WY 82001<br>307/777-7270 | Terry Hanley<br>Director | 241.8 | | | 102.6 |

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| Corporate bonds (in millions) | Mortgages (in millions) | Cash and short-term securities (in millions) | Other (in millions) | Reporting date | Investment advisers |
|---|---|---|---|---|---|
| $301 | $ | $25 | $ | 3/31/80 | First National Bank & Trust Company, Oklahoma City |
| 481.4 | 360.2 | 15.6 | 89.0 | 12/31/79 | Internal Administration/David L. Babson & Co.; Batterymarch Financial Management Corp.; Columbia Management; George D. Bjurman & Assoc.; BEA Associates, Inc.; Harris Associates, Inc., Quest Advisory Corp.; Claude Rosenberg; Fayez Sarofim & Co.; William D. Witter, Inc. |
| 20 |  | 4 | 6 | 12/31/79 | Fidelity Bank |
| 2,628.0 | 613.2 | 240.4 | 273.6 | 6/30/79 | Mellon Bank, N.A.; The Fidelity Bank |
| 1,747.7 | 426.7 | 153.1 |  | 4/30/80 | Mellon Bank; Alliance Capital Management Corp.; Fidelity Bank |
| 125.4 | 12.3 | 58.1 | 2.1 | 6/30/79 | Internal Administration |
| 1,202 |  |  | 4 | 4/30/80 | Jamison, Eaton & Wood, Inc. |
| 1 | 7.5 | 31 |  | 3/31/80 | Al A. Asher |
| 464.0 | 8.1 | 77.6 | 92.7 | 3/31/80 | Internal Administration |
| 640 |  | 223 |  | 5/31/80 | E. F. Hutton & Co. |
| 1,439.9 |  | 43.5 | 5.1 | 5/31/80 | Internal Administration/Duff and Phelps |
| 352.4 | 22.2 | 112.5 | 23.3 | 4/30/80 | Capital Consultants, Inc.; Eagle Management & Trust Co.; Smoot Knoche & Co.; Trust Co. of the West; Value Line Asset Management |
| 26.8 | 7.5 | 6.8 | 13.3 | 6/30/79 | Loomis, Sayles & Co.; Brundage, Story & Hose; Colonial Investment Advisors |
| 445.8 (bk.) |  | 130.7 (bk.) | 72.1 (bk.) | 4/30/80 | Internal Administration/The Bank of New York; Batterymarch Financial Management; Massachusetts Financial Services Company; Putnam Advisory Company, Inc. |
| 875 | 200 | 269 | .1 | 12/31/79 | Internal Administration/Batterymarch Financial Management Corp.; Columbia Management Co.; Eagle Management & Trust Co.; Loomis, Sayles & Co.; Pringle, Flinn, Elvins & Donahoe; Inc.; Torray and Clark |
| 133.0 | 28.5 | 42.25 | 25.5 | 3/31/80 | The Boston Company |
| (combined) | 213.5 | 616.5 | 15.4 | 6/30/79 | Internal Administration |
| 129.7 | 9.5 |  |  | 12/31/79 | Alliance Capital Management Corp. |

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SEPTEMBER 1980

# Pension World

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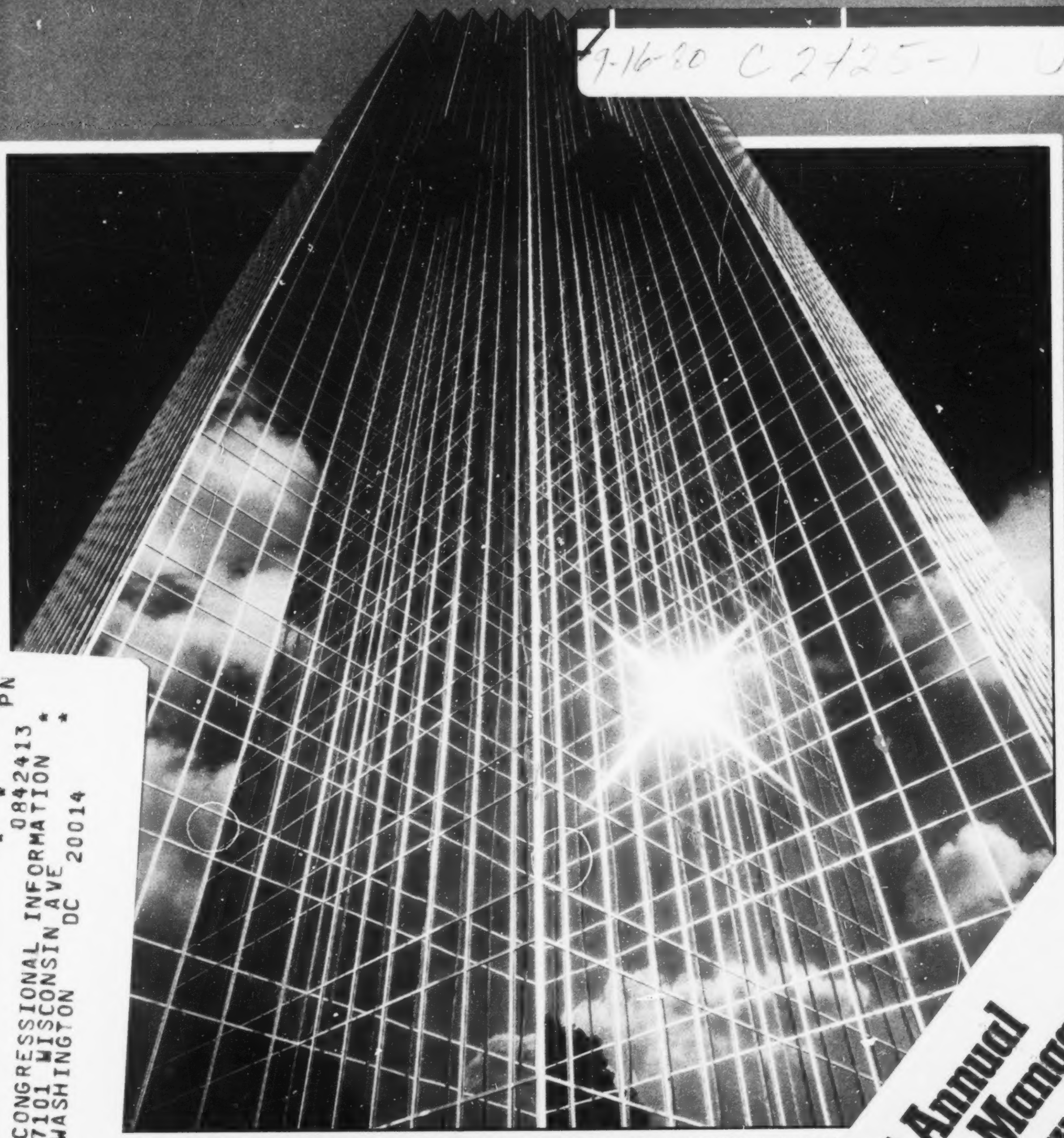

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## Third Annual Real Estate Manager Directory

Du Pont's $4,100,000,000 Pension Fund Chemistry

Survey: Pension Fund Real Estate Investing

Using Leverage in Real Estate Investment

September 1980

# Pension World

Volume 16 Number 9

**The Magazine for Plan Sponsors** / *A Publication of Communication Channels, Inc.*

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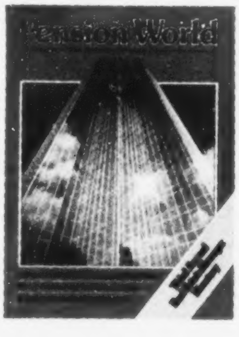

**Cover:** A mutual interest between pension funds and real estate seems to be growing. *PW*'s real estate stories begin on page 12.

**Cover photo: Tower Place, Atlanta, Ga. Photography by E. Alan McGee. Courtesy of Stevens & Wilkinson Architects Engineers Planners Inc. Used by permission.**

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# Survey of Real Estate Investing by Pension Fund Administrators

During June 1980, *Money Market Directories, Inc.*, distributed real estate questionnaires to the senior investment officers of the 1,000 largest corporate pension funds — all of which are funds with more than $23 million in total assets. Two hundred forty-nine completed questionnaires were returned, for a response rate of 24.9 percent. All further references to percentages are based upon this total response universe of 249 sponsors, both in the text of this article and in the following statistics, unless otherwise indicated.

Thirty-eight percent of the respondents currently own real estate equities, and each owns an average of $24.4 million. This real estate ownership amounts to $2.28 billion total and represents 4.13 percent of the respondents' total assets of $55 billion. The 4.13 percent figure of real estate ownership as a percent of total portfolio assets is close to previous industry estimates of between three and four percent.

A more significant aspect of pension funds and their involvement with real estate is what they intend to do in the future. We have made a distinction here between two types of real estate participation: direct ownership of real estate equities and participation in a common trust fund.

One hundred twenty-two of our respondents intend to invest $1.708 billion in real estate equities during the next three years. This is an average of $14 million per fund and is primarily directed to the purchase of income-producing property utilizing either a bank, insurance company, or real estate firm to manage the property.

One hundred five of the respondents will purchase commingled funds during the next three years, and their investment will be $1.466 billion in new commitments. The average investment per fund is $14 million, which will go primarily to insurance company funds and bank-sponsored funds. Significantly less interest is shown in other sponsors of common trust funds.

Most readers of articles devoted to pension fund investment in real estate are particularly interested in the total anticipated real estate investment by pension funds in the near future. We will not disappoint you but will limit our predictions to the actions of the largest 1,000 corporate pension funds.

Our 25 percent response rate from 1,000 corporate pension funds represents an excellent sample. Over half the returns were *not* inclined to invest in real estate during the next three years, which suggests that we received an equal proportion of answers from both sponsors who were interested in our questions and those who were not, due to their lack of interest in real estate. Therefore, we believe our sample to be representative of all the largest corporate pension funds' intentions and will multiply our actual results by a factor of four to arrive at our estimate.

Our study projects that pension funds will commit an additional $12.7 billion to new real estate investments over the next three years, divided almost equally between the direct ownership of real estate equities and participation in commingled common trust funds sponsored by institutional managers. We should note that these 1,000 largest corporate pension funds had $221 billion in total assets collectively as of December 1979, which represented 83 percent of the total corporate pension assets in the United States.

The following are actual tabulations from the 249 respondents. We have compared this year's responses to our previous surveys whenever possible. It should be noted that whenever percentages add to more than 100 percent, it is due to multiple answers.

*The information contained in this survey has been researched, edited and copyrighted by Money Market Directories, Inc., publishers of the* Money Market Directory, *the encyclopedia of pension funds with assets over $2 million and their investment advisers. Included in Money Market Directories' data base is real estate ownership by all major U.S. pension funds. For further information, contact David Bowerman, vice president, 818 East High St. Charlottesville, Va. 22901, (800) 446-2810.*

Do you regard real estate investment as an effective inflation hedge?

| | 1975 | 1976 | 1977 | 1980 |
|---|---|---|---|---|
| Yes | 80% | 62% | 67% | 86% |
| No | 15% | 36% | 29% | 8% |
| Did not answer | 5% | 2% | 4% | 6% |

Do you regard real estate investments as being capable of contributing consistency to your fund's performance?

| | 1975 | 1976 | 1977 | 1980 |
|---|---|---|---|---|
| Yes | 71% | 59% | 59% | 77% |
| No | 23% | 39% | 37% | 18% |
| Did not answer | 6% | 2% | 4% | 5% |

What would you regard as the minimum acceptable net cash yield to the fund from real estate equity investments?

| | 1975 | 1976 | 1977 | 1980 |
|---|---|---|---|---|
| Specified a minimum of 7% | 5% | 17% | 21% | 11% |
| Specified a minimum of 8% | 20% | 15% | 18% | 13% |
| Specified a minimum of 9% | 22% | 15% | 17% | 14% |
| Specified a minimum of 10% | 17% | 21% | 17% | 17% |
| Specified a minimum in excess of 10% | 13% | 13% | 9% | 21% |
| Did not answer | 23% | 19% | 18% | 24% |

What would be your minimum expectation for annual appreciation from real estate equity investments?

| | 1975 | 1976 | 1977 | 1980 |
|---|---|---|---|---|
| Expected annual appreciation of less than 2% | 4% | 1% | 4% | — |
| Identified 2% appreciation as the minimum acceptable rate | 23% | 12% | 9% | 3% |
| Identified 3% appreciation as the minimum acceptable rate | 26% | 18% | 12% | 4% |
| Identified 4% appreciation as the minimum acceptable rate | 16% | 9% | 6% | 6% |
| Identified 4+% appreciation as the minimum acceptable rate | 17% | 37% | 48% | 66% |
| Identified 5% appreciation as the minimum acceptable rate | — | — | — | 17% |
| Identified 6% appreciation as the minimum acceptable rate | — | — | — | 10% |
| Did not answer | 14% | 23% | 21% | 21% |

Has your fund given consideration to participation in direct real estate investment utilizing the management expertise of an outside real estate counselor?

| | 1975 | 1976 | 1977 | 1980 |
|---|---|---|---|---|
| Yes | 29% | 18% | 22% | 33% |
| No | 66% | 74% | 66% | 60% |
| Did not answer | 5% | 8% | 12% | 7% |

If yes, what type of organization?
A. 13% insurance company
B. 10% bank
C. 4% investment banker
D. 3% developer
F. 12% independent real estate management firm
G. 3% broker or realtor
H. 66% NA

What do you regard as an acceptable management fee for your fund's participation in direct real estate investment utilizing an outside real estate investment counsel?

| | 1975 | 1976 | 1977 | 1980 |
|---|---|---|---|---|
| ½ of 1% annually of real estate under management | 19% | 22% | 39% | — |
| ¾ of 1% annually of real estate under management | 9% | 13% | 7% | 29% |
| 1% annually of real estate under management | 9% | 17% | 13% | 30% |
| 1¼% annually of real estate under management | — | — | — | 5% |
| 1½% annually of real estate under management | 6% | 3% | 1% | 8% |
| 2% annually of real estate under management | 1% | 1% | 0% | 1% |
| Did not answer | 56% | 44% | 40% | 26% |

Which of the following stages in the real estate investing cycle do you consider the most and least attractive? (Indicate M or L)

| | M | L | |
|---|---|---|---|
| A. | (8) | (47) | % raw land |
| B. | (14) | (15) | % development |
| C. | (67) | (1) | % purchase of income property |
| D. | (7) | (25) | % property management |
| E. | (4) | (12) | % sale |

How do you value the real estate in your portfolio?

| | 1977 | 1980 |
|---|---|---|
| At cost | 33% | 17% |
| By replacement cost | 5% | 10% |
| By income appraisal-capitalizing the value of the income flow | 16% | 30% |
| Comparable property sale | — | 31% |
| All of the above | — | 22% |
| Did not answer | 46% | — |

Do you believe that the tax-exempt pension trust is able to compete efficiently with the tax-sheltered or private investor in the purchase of real estate between the range of $1 million and $5 million?

| 1977 | | 1980 | |
|---|---|---|---|
| Yes 35% | No 39% | Yes 56% | No 30% |

Between the range of $5 million and $10 million?

| 1977 | | 1980 | |
|---|---|---|---|
| Yes 45% | No 24% | Yes 68% | No 16% |

Does the type of real estate investments affect this decision?

| 1977 | | 1980 | |
|---|---|---|---|
| Yes 41% | No 24% | Yes 60% | No 21% |

In view of ERISA's provisions that fiduciaries can be held personally liable for the investment decisions made for their fund, what effect, if any, would this have on your real estate investment policy?

| | 1976 | 1977 | 1980 |
|---|---|---|---|
| No effect on real estate investment policy | 35% | 37% | 31% |
| Little effect | 20% | 17% | 24% |
| More conservative approach to real estate investment policy | 22% | 25% | 27% |
| Would not make real estate investments | 6% | 10% | 7% |
| More liberal approach to real estate investment policy | 1% | 0% | 0% |
| Other | 2% | 2% | 2% |
| Did not answer | 14% | 9% | 9% |

In view of ERISA's provisions concerning the diversification of portfolios, what effect, if any, would this have on your real estate investment policy?

| | 1976 | 1977 | 1980 |
|---|---|---|---|
| No effect on real estate investment policy | 39% | 39% | 32% |
| Little effect | 25% | 23% | 29% |
| More conservative approach to real estate investment policy | 10% | 11% | 18% |
| Would not make real estate investments | 4% | 8% | 5% |
| More liberal approach to real estate investment policy | 7% | 6% | 8% |
| Other | 2% | 5% | 2% |
| Did not answer | 13% | 8% | 10% |

As a participant in real estate pool-type vehicles, would your fund be more inclined to:

| | 1975 | 1976 | 1977 | 1980 |
|---|---|---|---|---|
| Concentrate your participation in one vehicle | 32% | 30% | 43% | 25% |
| Distribute participation in two or more vehicles | 68% | 70% | 57% | 45% |
| Did not answer | — | — | — | 30% |

What do you regard as an acceptable management fee for your fund's participation in institutionally sponsored pool-type real estate vehicles?

| | 1975 | 1976 | 1977 | 1980 |
|---|---|---|---|---|
| ½ of 1% annually of real estate under management | 26% | 30% | 29% | — |
| ¾ of 1% annually of real estate under management | 15% | 16% | 8% | 35% |
| 1% annually of real estate under management | 26% | 15% | 16% | 24% |
| 1¼% annually of real estate under management | — | — | — | 5% |
| 1½% annually of real estate under management | 9% | 1% | 1% | 2% |
| 2% annually of real estate under management | 1% | 0% | 1% | 0% |
| Did not answer | 23% | 38% | 45% | 71% |

Does your fund intend to purchase new real estate investments during the next three years?

| | 1976 | | 1977 | | 1980 | |
|---|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | Number | Percent |
| Yes | 48 | 29% | 52 | 29% | — | — |
| Yes — direct ownership | — | — | — | — | 122 | 49% |
| Yes — commingled | — | — | — | — | 105 | 42% |
| No | 96 | 58% | 96 | 53% | — | — |
| No — direct ownership | — | — | — | — | 127 | 51% |
| No — commingled | — | — | — | — | 144 | 58% |

The method of participation for these funds is:

| | Number | Percent | Number | Percent | Number | Percent |
|---|---|---|---|---|---|---|
| Mortgages | 9 | 19% | 14 | 27% | NA | NA |
| Direct ownership | | | | | | |
| Direct purchase | 15 | 31% | 19 | 37% | 59 | 48% |
| General partnership | 0 | 0% | 0 | 0% | 39 | 32% |
| Limited partnership | 3 | 6% | 3 | 6% | 18 | 15% |
| Corporations | 0 | 0% | 4 | 8% | 21 | 17% |
| Commingled ownership | | | | | | |
| Bank commingled | 19 | 40% | 18 | 35% | 43 | 41% |
| Insurance commingled | 23 | 48% | 29 | 56% | 57 | 54% |
| Other Common Trust Funds | 2 | 4% | 4 | 8% | 13 | 12% |
| REITs | 4 | 8% | 2 | 4% | NA | NA |
| Others | 1 | 2% | 0 | 0% | NA | NA |

# Portfolio risk reduction through foreign stock

**by Albert J. Fredman and Radha M. Sharma**

Diversification, i.e., spreading the risks, is an important maxium of prudent investment management that has been practiced on a domestic level for years. The rule of thumb is that at least ten to fifteen different common stocks — preferably representing a variety of companies in different industries with different economic characteristics — are needed to eliminate most of the company-specific risk. This leaves the portfolio manager with market-related risk, or beta, which cannot be diversified away — at least not with a portfolio consisting exclusively of domestic equities. This market-related risk is a big risk today since the stock markets of the U.S. have been especially volatile during the past decade or so.

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## International diversification

Investing in a wide variety of foreign as well as domestic common stocks is an effective means of significantly lowering the market-related risk of a stock portfolio. Certain investors, such as European institutions that are worried about high rates of inflation at home, have done this for years. For medium-sized and large portfolios of securities, international diversification is in the interest of prudent money management; the risk of the domestic market can be averaged with the risks of other markets. Individual foreign economies can differ favorably or unfavorably from our economy in terms of their personal savings rate, resource self-sufficiency, private capital investment, real GNP growth, etc. Therefore, foreign stock markets, as a group, are not expected to move in unison, since each foreign economy moves in its own growth cycle.

The world's stock markets are somewhat independent. Thus, a portfolio of stocks that is well-diversified across countries is protected from the risks inherent in any one of the countries. The risk (volatility) of such a portfolio will be less and/or the return will be

**EXHIBIT I**

**Total Returns from Major Stock Markets, 1970-1979**

| Country | Percentage return (capital plus dividend) in each year | | | | | | | | | | Compound %p.a. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 70-79 | 74-79 |
| **FAR EAST** | | | | | | | | | | | | |
| Australia | −19.1 | −7.7 | +20.2 | −12.2 | −32.0 | +47.1 | −10.3 | +10.8 | +20.4 | +41.5 | +5.7 | +20.0 |
| Hong Kong | +42.4 | +75.8 | +150.5 | −40.6 | −56.7 | +108.4 | +43.2 | −4.1 | +23.9 | +79.2 | +24.5 | +44.8 |
| Japan | −11.4 | +33.5 | +123.4 | −20.1 | −15.6 | +19.0 | +24.8 | +15.2 | +52.0 | −11.9 | +18.5 | +18.1 |
| Singapore | — | +56.1 | +126.5 | −28.7 | −35.8 | +50.0 | +12.2 | +12.6 | +47.5 | +29.0 | +21.7 | +29.2 |
| **N. AMERICA** | | | | | | | | | | | | |
| Canada | −3.2 | +7.1 | +25.6 | −1.4 | −26.1 | +14.0 | +18.8 | −2.4 | +19.2 | +49.5 | +8.7 | +16.6 |
| U.S.A. | +0.4 | +15.3 | +17.1 | −17.1 | −27.5 | +35.6 | +23.3 | −7.7 | +6.1 | +14.4 | +4.7 | +13.4 |
| **EUROPE** | | | | | | | | | | | | |
| Austria | +10.7 | −1.2 | +36.1 | +23.4 | +14.2 | −3.1 | +14.9 | +5.3 | +14.7 | +18.5 | +13.1 | +9.8 |
| Belgium | +6.0 | +9.4 | +30.9 | +14.2 | −13.8 | +12.8 | +8.6 | +9.8 | +28.8 | +14.8 | +12.1 | +14.7 |
| Denmark | −6.9 | +2.8 | +106.9 | +4.7 | −10.9 | +22.1 | +6.2 | +1.6 | +8.2 | −2.9 | +11.9 | +6.7 |
| France | −6.6 | −6.1 | +23.4 | +3.2 | −22.0 | +41.9 | −19.8 | +4.8 | +68.3 | +26.5 | +10.1 | +20.5 |
| W. Germany | −23.4 | +10.4 | +17.5 | −4.8 | +15.9 | +28.4 | +6.1 | +24.3 | +25.2 | −4.4 | +12.7 | +15.2 |
| Italy | −17.4 | −16.2 | +14.0 | +9.7 | −33.1 | −8.8 | +26.2 | −18.5 | +44.3 | +16.6 | −4.7 | −1.6 |
| Netherlands | −6.8 | −3.6 | +27.7 | −5.3 | −15.4 | +46.0 | +15.2 | +14.6 | +18.6 | +17.8 | +11.5 | +21.9 |
| Norway | +32.9 | +10.6 | +8.4 | +126.4 | −39.3 | −14.9 | +14.1 | −22.7 | +5.4 | +176.8 | +15.3 | +17.0 |
| Spain | −4.0 | +17.8 | +39.5 | +24.3 | −8.7 | −0.4 | −35.2 | −32.6 | +6.0 | +3.7 | −1.3 | −13.8 |
| Sweden | −18.8 | +26.8 | +15.8 | +2.3 | +10.7 | +19.7 | +5.5 | −20.3 | +22.2 | +1.8 | +8.4 | +4.4 |
| Switzerland | −13.2 | +14.9 | +27.8 | −4.0 | −12.5 | +39.6 | +9.9 | +27.6 | +20.8 | +11.6 | +14.0 | +21.4 |
| U.K. | −6.1 | +37.4 | +3.4 | −25.5 | −47.7 | +109.5 | −11.7 | +55.5 | +14.1 | +21.3 | +9.2 | +31.8 |
| **WORLD** | −2.4 | +16.0 | +22.1 | −14.3 | −23.6 | +32.9 | +13.9 | +1.8 | +17.2 | +11.8 | +7.2 | +15.1 |

All figures shown in U.S. $ terms; capital plus dividends.
Source: Capital International, Geneva.
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**Japan has comprehensive securities laws which, in many respects, are similar to our federal securities laws.**

greater than that of a portfolio of securities selected from only one country. A portfolio that is well-diversified in different foreign countries may be expected to have only about 50 percent of the risk, or variability of returns, as a well-diversified portfolio consisting of an equivalent number of U.S. stocks.[1]

That the world's stock markets exhibit at least some degree of independence can be seen in the data in Exhibit I. The total rate of return including dividends for each of the world's principal stock markets during the 1970's is shown in U.S. dollars. The lack of positive correlation among the rates of return between certain pairs of different stock markets during certain periods is evident from an examination of these data. For instance, in 1970, the return from the Hong Kong market was +42.4 percent, whereas the return from the West German market was -23.4 percent. Over the 1974-79 period, the return from the Hong Kong market, a spectacular performer during the 1970's, was +44.8 percent, whereas the 1974-79 return from Spain's stock market was -13.8 percent.

Foreign investment holds a number of attractions in addition to the potential of reducing market-related risk. For instance, in the period since World War II, certain foreign economies have grown more rapidly than ours, and their stock markets have outperformed ours as well. Further, the securities markets of many countries are exhibiting significant growth in size and liquidity. For instance, Japan has eight stock exchanges, and the Tokyo Stock Exchange is the second largest in the world (after the New York Stock Exchange) in terms of the value of shares traded. And Japan has comprehensive securities laws which, in many respects, are similar to our federal securities laws.

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[1] Bruno H. Solnik, "Why Not Diversify Internationally Rather Than Domestically?" *Financial Analysts Journal,* July-August 1974, pp. 48-54.

**There may be less publicly available information on foreign companies than U.S. citizens are accustomed to seeing on domestic companies.**

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## Risks of foreign investment

In addition to the usual kinds of risks one faces when investing in domestic securities, several additional risks and potential problems are brought into the picture when investing overseas.

*Political Risk.* Political risk exists more with certain foreign countries than with others. Expropriation or confiscatory taxation, political or social instability, or diplomatic developments can affect U.S. investors holding foreign securities. For instance, U.S. citizens have experienced the nationalization and expropriation of foreign companies in which they held stock. And, certain foreign governments, such as Cuba, have defaulted on their bonds.

*Exchange Rate Risk.* Since 1971, the world has been on a system of managed floating exchange rates. The rate at which the U.S. dollar can be exchanged for another country's currency "floats" (fluctuates), based upon the demand and supply conditions for the respective currencies. The investor who holds securities denominated in a particular country's currency runs the risk of loss if that country's currency declines in value in relation to the U.S. dollar during the period the investment is held. Over a recent six-year period, the Australian stock market rose 2.1 percent in Australian dollars, but declined 19.4 percent in terms of U.S. dollars. On the other hand, if the foreign currency rises in value relative to the U.S. dollar, the investor will gain. During this same six-year period, the German market, which rose just 1.6 percent in deutschmarks, advanced 52.6 percent in U.S. dollar terms because of the large increase in the strength of Germany's currency relative to ours.

*Other Investment Problems.* Since foreign companies are not generally subject to uniform accounting standards, there may be less publicly available information on them than U.S. citizens are accustomed to seeing on domestic companies. While growing in trading volume, foreign stock markets generally have less volume than the NYSE, and the stocks of some foreign companies are less liquid and more volatile than those of comparable domestic companies. These characteristics may also exist in certain foreign bond markets.

Fixed commissions, which exist on foreign stock exchanges, are generally higher than our negotiated commission rates. Less governmental regulation and supervision of stock exchanges, brokers and listed companies generally exists abroad than in the U.S. Myriads of different foreign securities exist, and it is often difficult to select a good foreign stock. Finally, there are difficulties of communication as well as the technical problems of executing a securities transaction in a distant foreign market.

## Reducing risks

The risks of investing abroad can be reduced to some degree by including in the portfolio the securities of a variety of companies selected from a number of different countries which exhibit different

**The most important requirement for effective international diversification is to have a sufficient number of different countries, with a variety of economic characteristics, represented in the portfolio.**

### EXHIBIT II

### Geographic Distribution of Assets of Multi-Country Funds

| Investment Company | Asset Distribution by Country | | | |
|---|---|---|---|---|
| G. T. Pacific Fund | Japan | 64.6% | Hong Kong | 5.6% |
| | Australia | 13.3% | | |
| Keystone International Fund | United States | 44.0% | Switzerland | 2.0% |
| | Canada | 7.0% | Australia | 1.0% |
| | United Kingdom | 6.8% | Belgium | 1.0% |
| | Japan | 6.0% | France | 1.0% |
| | Germany | 5.0% | Hong Kong | 1.0% |
| | Mexico | 2.0% | Netherlands | 1.0% |
| | | | Singapore | 1.0% |
| New Perspective Fund | United States | 66.3% | United Kingdom | 1.8% |
| | Canada | 6.1% | Netherlands | 1.7% |
| | Japan | 4.6% | Germany | 1.0% |
| | Australia | 2.4% | Singapore | 0.9% |
| | France | 1.8% | Hong Kong | 0.8% |
| | | | Other Non-U.S. | 0.4% |
| Putnam International Equities Fund | United States | 29.5% | South Africa | 4.8% |
| | Japan | 23.0% | United Kingdom | 4.8% |
| | Germany | 8.2% | Holland | 4.7% |
| | Australia | 6.6% | Hong Kong | 3.7% |
| | | | Switzerland | 2.7% |
| Rowe Price International Fund | Japan | 40.0% | France | 5.0% |
| | United Kingdom | 20.0% | Netherlands | 5.0% |
| | Germany | 15.0% | Singapore and Malaysia | 5.0% |
| | Australia | 5.0% | | |
| | | | Switzerland | 5.0% |
| Scudder International Fund | Europe | 22.0% | South Africa | 13.0% |
| | Japan | 21.0% | Hong Kong | 4.0% |
| | Australia | 20.0% | Singapore | 4.0% |
| | Canada | 13.0% | Mexico | 3.0% |
| Templeton Growth Fund Ltd. | United States | 59.8% | Australia | 3.0% |
| | Canada | 20.1% | South Africa | 0.4% |
| | Japan | 4.9% | United Kingdom | 0.4% |
| | Netherlands | 3.6% | Hong Kong | 0.1% |
| Templeton World Fund | United States | 63.6% | Japan | 4.0% |
| | Canada | 12.0% | Holland | 3.1% |
| | Australia | 4.6% | United Kingdom | 0.3% |
| | | | Mexico | 0.1% |

The investment percentages appearing in this table are general indications and should not be taken as necessarily current portfolio breakdowns, since the proportions may change considerably over time. Percentages for individual funds do not add to 100 percent in those instances where short-term reserves are not included.

economic characteristics. For example, in the illustration above, a U.S. investor who held Australian securities would have lost money on his holdings, whereas the one who held German securities would have gained. By holding securities of both German and Australian companies over this period, the exchange rate loss on the Australian securities would be averaged with the exchange rate gain on the German holdings.

Thus, exchange rate fluctuations will present less of a risk when the securities of companies located in a variety of countries are held. The same logic applies to political risk and to the economic prosperity (or lack of it) of the country and its businesses. The most important requirement for effective international diversification is to have a sufficient number of different countries, with a variety of economic characteristics, represented in the portfolio. The same reasoning has applied in a somewhat different way to domestic investment, since prudent money managers generally opt to invest in the stocks of companies chosen from a variety of industries with different characteristics.

Investing through investment companies that hold portfolios of the securities of companies representing one or more different foreign countries can be a practical and effective way of lessening the risks and problems inherent in foreign investment. These foreign funds would not represent a total investment program, of course, but could be an important supplement to an existing portfolio of stateside securities.

## International funds

Several types of investment companies are available to the overseas investor: 1) funds that specialize in investments in one specific country only, 2) funds that invest in different foreign countries, 3) funds that invest in United States securities — which may account for one-half or more of their assets — and in the securities of companies in different foreign countries, and 4) funds that invest primarily in gold mining stocks of South African companies. This article will focus on the first three types of funds.

## Investment in one foreign country

Japan Fund and Nomura Index Fund of Japan invest exclusively in

**After the U.S., Japan is the second-largest free world economy.**

Japanese securities. The Convertible Fund of Japan invests in convertible bonds of Japanese firms. After the U.S., Japan is the second-largest free world economy. Canadian Fund, which seeks long-term capital growth, provides a medium for diversified investment in Canada.

Nomura Index Fund, which was started in 1978, is the first index mutual fund to invest in foreign securities. The total net assets of the fund were just under $3 million at this writing. The fund is an open-end, no-load fund that holds the Nomura 185 Index, which consists of the largest 185 common stocks (based on total market value of outstanding shares) listed on the First Section of the Tokyo Stock Exchange. The First Section of the TSE is comprised of over 900 large, well-seasoned companies as opposed to the some 500 smaller, more speculative companies traded on the Second Section. The 185 Index is thought to be broadly representative of the Japanese stock market as a whole. The objective of an index fund is to mirror the performance of a particular market, not to outperform the market. The minimum initial purchase for the fund is $250,000, and subsequent investments must be in increments of $100,000. Because the fund follows a buy-and-hold strategy, it has a low expense ratio and a low portfolio turnover. The redemption fee is determined by the length of time the shares have been held.

The Japan Fund, a closed-end investment company, started operations in 1962. Because it is closed-end, it often sells at a discount from its net asset value. This discount, if wide by historical standards, can make the fund more attractive yield-wise. For instance, if the fund is selling at a 25 percent discount from its net asset value, the investor will have one dollar's worth of assets for each 75 cents invested. The discount on many closed-end funds can more than offset the annual expenses of running the fund, which are charged to the investor and indicated by the fund's expense ratio.

The basic problem of the global investor is how to invest in the securities of companies in a variety of countries so as to realize the maximum risk reduction in the overall portfolio. A portfolio of

**Ten or 12 countries should be represented in a portfolio to achieve full benefit of international diversification.**

U.S. and Japanese stocks, for example, while having some degree of international diversification and being less risky than a portfolio consisting entirely of U.S. stocks, will not be diversified enough for a substantial reduction of risk. Ten or 12 countries should be represented in the portfolio to achieve full benefit of international diversification. These countries should exhibit different characteristics and preferably be in different stages of development, since the developing countries that are beyond their take-off stage have the greatest long-term growth potential.

### Investment in several foreign countries

G. T. Pacific Fund, a small no-load fund started in 1977, specializes in far eastern countries. Headquartered in San Francisco, the fund initially invested exclusively in Japanese securities. But, as of March 1980, the fund can also invest in the securities of other far eastern countries, namely Hong Kong, Singapore, Malaysia, the Philippines, Australia and New Zealand. Japanese securities still constitute the majority of its present holdings.

In July 1980, the shareholders of the Nomura Capital Fund of Japan, which invested exclusively in Japanese securities, voted to have Merrill Lynch take a lead role in expanding the investment territory of the fund to include the securities of companies located throughout Asia and Australia. The reasoning behind this broader investment territory is that some of the countries outside Japan are at an earlier stage in their economic development and, hence, afford the possibility of greater growth potential. This move is intended to stimulate stronger investor interest in the fund; the assets of the Nomura Capital Fund had declined from about $30 million at its inception in 1976 to some $11 million recently. The new manager of the fund, now named Merrill Lynch Pacific Fund, is Merrill Lynch-Nomura Management Co. (At this writing, it was too soon to obtain meaningful data on the geographic distribution of the new fund's assets.)

Scudder International Fund, a no-load fund, invests in a wide variety of countries. The fund in-

**The far eastern markets have generally yielded the highest rates of return over the past five years as well as the past ten years.**

tends to have represented in the portfolio, in substantial proportions, business activities in no fewer than three different countries. It invests exclusively in foreign securities. Currently, the fund's portfolio emphasizes holdings in countries rich in energy resources and in far eastern countries where economies are expected to enjoy relatively high growth rates. As seen in Exhibit I, the far eastern markets have generally yielded the highest rates of return over the past five years as well as the past ten years.

[redacted]

The Rowe Price International Fund is a no-load, balanced fund which requires a $25,000 minimum initial investment. Designed mainly for institutional investors, it commenced operations in May 1980. The fund invests primarily in the common stocks of established companies located in developed, as well as developing, countries. Further, it diversifies its investments broadly among countries and intends normally to have businesses in at least three different countries represented in its portfolio. Presently, the assets of the fund are invested in Europe and the Far East.

### Investment in the U.S. and foreign countries

One fund that invests in U.S. and foreign securities is the New Perspective Fund of the American Funds Group. A large fund, it invests chiefly in the stocks of U.S. companies; however, it can invest up to 40 percent of its assets in foreign securities. The Putnam International Equities Fund recently had some 30 percent of its assets invested in stateside securities, with the balance invested in eight different foreign countries. Up to 70 percent of the fund's assets may be invested in foreign securities. Keystone International Fund also invests in a variety of countries (12 foreign countries are represented in its portfolio, according to a recent report) but some 44 percent of its assets are presently in U.S. securities. However, it can invest up to 100 percent of its assets abroad, as it has no country limits.

Nearly 60 percent of the assets of the Templeton Growth Fund Limited portfolio is now invested in U.S. securities. This fund was started in 1954. John Templeton changes the amounts invested in

*(Continued on page 104)*

**A number of foreign-stock funds are available to the portfolio manager who desires a simple, effective, and economical vehicle for international diversification.**

## Portfolio risk reduction through foreign stock

*(Continued from page 78)*

different countries in accordance with his estimates of the prospects of the individual companies and economies.

For instance, at one time, Japanese stocks accounted for the majority of the fund's assets. Currently, he feels that U.S. securities are the best buy. The much newer Templeton World Fund, begun in January 1978, also has over 60 percent of its assets now invested in U.S. securities. Like the Keystone International Fund, the Templeton funds face no country limits and can commit up to 100 percent of their assets abroad. Templeton trys to avoid countries which have socialism and high rates of inflation.

Funds that invest in stateside as well as foreign securities may not be as desirable for purposes of international diversification for an institution that already has an adequate amount of U.S. holdings in the form of individual stocks and/or investment companies. These funds would appeal to those seeking a lesser degree of international diversification. Or, they may be attractive to investors looking for a complete portfolio in one investment company. An investor can obtain the optimum international portfolio mix by selecting a fund that consists of, in the minds of the fund managers, the optimal proportions of U.S. securities and the optimum amounts invested in the various foreign countries.

### Conclusions and recommendations

A number of foreign-stock funds are available to the portfolio manager who desires a simple, effective, and economical vehicle for international diversification. The investor will want to consider past data on the fund's expense ratio, portfolio turnover, portfolio composition, and performance, among other things.

More funds that invest virtually all of their assets in the securities of one or a number of foreign countries are needed to offer investors (who already hold a portfolio of U.S. securities) an opportunity to achieve truly effective international diversification with its desirable reduction in overall portfolio risk and/or increase in return. These funds should preferably be of the no-load variety without excessive expense ratios and portfolio turnover. A lower portfolio turnover means lower transaction costs to be passed on to the fund's shareholders. ☐

# 3rd Annual Real Estate Manager Directory

■ The following *Pension World* Real Estate Manager Directory lists firms who are managing real estate investment portfolios for pension funds. It is not an exhaustive list, but rather lists the firms who responded to *Pension World*'s questionnaire and who fit the prescribed criteria.

Only those respondents who indicated they are already providing real estate investment for pension funds are listed. No company is listed whose total assets under real estate management were less than $10 million.

| Name and address | Person to contact, phone | Total assets under real estate management ($ millions) | Number of tax-exempt real estate clients | Total tax-exempt real estate assets under management ($ millions) |
|---|---|---|---|---|
| **AETNA LIFE INSURANCE COMPANY**<br>151 Farmington Avenue<br>Hartford, CT 06156 | John C. Lang<br>Vice President<br>203/273-7361 | 7,900 | 3,700 general accounts<br>25 equity separate accounts | 7,900 |
| **AMERICAN PRINCIPALS CORPORATION**<br>The American Building<br>2262 Carmel Valley Road<br>San Diego, CA 92014 | Gregory D. Fitzpatrick<br>Counsel<br>714/381-8181 | 4,000 | 100+ | N/A |
| **AMFAC MORTGAGE CORPORATION**<br>Suite 380<br>Lloyd 500 Building<br>500 N.E. Multnomah<br>Portland, OR 97034 | Michael D. Elton<br>Vice President<br>503/243-1708 | 1,300 | 3-5 | None[1] |
| **BANK OF AMERICA**<br>Investment Real Estate<br>180 Montgomery Street<br>P.O. Box 37026<br>San Francisco, CA 94137 | David Madison<br>Assistant Vice President<br>415/622-6526 | 215 | 242 | 60 |
| **BRENTON BANKS, INC.**<br>Sixth & Walnut<br>P.O. Box 5193<br>Des Moines, IA 50306 | Robert E. Leech<br>Vice President-Trust<br>515/244-1981 | 20 | 3 | 3 |
| **ALEX BROWN REALTY CO.**<br>135 East Baltimore Street<br>Baltimore, MD 21202 | Turner B. Smith<br>Executive Vice President<br>301/727-1700 | 60 | 15-20 | 20 |
| **CALIFORNIA FEDERAL SAVINGS & LOAN ASSOCIATION**<br>5670 Wilshire Boulevard<br>Los Angeles, CA 90036 | David J. Reed<br>Senior Vice President<br>213/932-4567 | 6,000 | 46 | N/A |
| **CAPITAL CONSULTANTS, INC.**<br>2300 S.W. First<br>Portland, OR 97201 | David Nelsen<br>Vice President<br>James Crumpacker<br>Assistant Vice President<br>503/241-1200 | 104 | 25 | 104 |
| **CITADEL INVESTMENT COMPANY**<br>17842 Irvine Boulevard<br>Suite 200<br>Tustin, CA 92680 | William Restivo<br>President<br>714/838-5521 | 150 | 40 | 50 |
| **CITIZENS ADVISORY CORPORATION**<br>20525 Center Ridge Road #505<br>Rocky River, OH 44116 | Robert M. Welsh<br>President | 16.0 | 1 | 16.0 |
| **COLDWELL BANKER CAPITAL MANAGEMENT SERVICES**<br>533 Fremont Avenue<br>Los Angeles, CA 90071 | Vincent F. Martin, Jr.<br>Senior Vice President-Manage<br>213/613-351 | 220 | 15 | 220 |
| **CONTINENTAL BANK**<br>30 North LaSalle Street<br>Chicago, IL 60693 | T. W. Thompson<br>Vice President<br>312/828-8460 | 400 | 84 | 50 |

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[1] Pension fund clients are under portfolio management, but real estate investment not yet made.

| Breakdown of assets into real estate holdings | Participation offered | Geographical diversification | Minimum investment | Return on investment (Net of fee) | Fee |
|---|---|---|---|---|---|
| Mortgage loans and income producing properties | Commingled | National | $100,000 | 13.82% in equity separate accounts | .95% |
| Income producing properties | High-yield first mortgages; free-and-clear commercial properties and equity placements | Southwest | $25,000 | 9-16% | Negotiated |
| $400 million + — income property mortgage; balance — land, residential and income properties | Open | Eight western states | $500,000 | Participant requirements | Open |
| Income producing properties | Open-end commingled fund (BAREF) and separate accounts | National | BAREF — $50,000 Separate accounts — $2 million | BAREF — 10.00% from inception (9/15/75) through 3/31/80 | BAREF — 1% of net assets; Separate accounts — variable |
| 90% farmland 10% income properties | Full ownership of property | Iowa | $500,000 | Varies | Negotiated |
| Income producing properties | Limited partnerships | East, Southeast, Southwest | $500,000 | 8-10% | Negotiable |
| — | 90/10 participation in mortgage passthrough | California | $1 million | Varies | Varies |
| 90% mortgages; 10% income producing properties (offices, light industrial, commercial) | Closed equity funds, mortgages | Pacific Northwest | $1 million | 9.5-10% Cash on cash | Varies |
| Multi-family, land, land development, first and second mortgages, convertible mortgage | Both equity and debt | Arizona, California, New Mexico, Nevada | $25,000 | 10-50% | Varies |
| Mortgages — $5.0 million; undeveloped land — $10.8 million; apartment — $250,963 | Negotiable | Midwest, Southeast | Negotiable | Negotiable | Negotiable |
| Income producing properties | Participation in a closed end fund based on *pro rata* investment | National | $1 million | Varies by fund | 1% per year based on asset cost plus a performance incentive fee |
| Tax-exempt — 42% income producing properties, 58% mortgages with participations; Taxable portion — primarily income producing urban and agricultural equities. | Direct purchase and participation in open end fund | National — concentrated in nine midwestern and southern states | $1 million direct purchase for Fund, 1 unit ($2,000) | Fund = 11.9% fiscal 1979 | Fund — 1% of unit value |

| Name and address | Person to contact, phone | Total assets under real estate management ($ millions) | Number of tax-exempt real estate clients | Total tax-exempt real estate assets under management ($ millions) |
|---|---|---|---|---|
| **CROCKER NATIONAL BANK**<br>Real Estate Investment Group<br>44 Montgomery Street<br>Suite 2110<br>San Francisco, CA 94104 | J. Arthur DeBoer<br>Vice President<br>415/477-8550 | 88.9 | 200 | 75.9 |
| **DATA REALTY CORPORATION**<br>358 Chestnut Hill Avenue<br>Boston, MA 02146 | John M. Peckham, III<br>President | 20 | 5 | 5 |
| **RICHARD ELLIS**<br>200 East Randolph Drive<br>Suite 6545<br>Chicago, IL 60601 | Bradley A. Olsen<br>312/861-1105 | 200 | 2 as direct investment clients; 20 as part of pooled funds (all U.K. entities) | 190 (exempt in U.K. only) |
| **EQUITABLE LIFE ASSURANCE SOCIETY OF THE U.S.**<br>1285 Avenue of the Americas<br>New York, NY 10019 | Theodore Q. Demeritte<br>Assistant Vice President<br>212/554-2352 | 14,200 | 202 | 7,200 |
| **EQUITY INVESTORS, INC.**<br>29001 Cedar Road<br>Suite 325<br>Cleveland, OH 44124 | Dan K. Silverberg<br>President<br>216/442-4820 | 80 | 10 | 10 |
| **EQUITY PROPERTIES CORPORATION**<br>25th Floor<br>First American Center<br>Nashville, TN 37238 | James S. F. Boyd<br>President<br>615/242-4417 | 50 | 410 | 40 |
| **FIRST FEDERAL SAVINGS**<br>3003 North Central<br>Room 406<br>Phoenix, AZ 85012 | Anthony D. Falconieri<br>Senior Vice President<br>602/248-3599 | 1,700 | 10 | 120 |
| **FIRST NATIONAL BANK IN DALLAS**<br>P.O. Box 83771<br>Dallas, TX 75283 | Nathan O. Finke<br>Vice President-Trust<br>214/744-8323 | 200 | 26 | 50 |
| **FIRST NATIONAL BANK OF BOSTON**<br>100 Federal Street<br>Boston, MA 02110 | Peter F. Tague, III<br>Vice President/<br>Marketing Director<br>617/434-4560 | 75 | 157 | 75 |
| **THE FIRST NATIONAL BANK OF CHICAGO**<br>16th floor, S.E.<br>1 First National Plaza<br>Chicago, IL 60670 | Charles M. Spear<br>Vice President<br>312/732-6474 | 516 | 71 | 278 (Fund F — 241); office buildings, convenience shopping centers and net-leased single tenant industrials |
| **FIRST NATIONAL BANK OF FORT WORTH**<br>P.O. Box 2260<br>Fort Worth, TX 76101 | G. L. Weaver<br>Vice President/<br>Trust Officer<br>817/390-6902 | 100 | 6 | 10 |
| **GALBREATH MORTGAGE COMPANY**<br>101 East Town Street<br>Columbus, OH 43215 | Gillis G. Pratt, Jr.<br>President<br>614/460-3100 | 1,400 | 9 | 182 (mortgages) |

| Breakdown of assets into real estate holdings | Participation offered | Geographical diversification | Minimum investment | Return on investment (Net of fee) | Fee |
|---|---|---|---|---|---|
| $65 million income producing; $10.9 million joint venture development separate account; $13 million another separate account | Whole units | National | $5,000 pooled; others individual | 12.9 pooled; 22.3 joint venture; N/A others | 1.2% annually, charged to pooled fund monthly; others vary depending on services provided |
| Income producing properties | Open | Investment acquisition throughout U.S.A./management primarily in New England states | $100,000 | Varies depending on financial goals | Varies depending on property and location |
| 92% income producing property; 8% mortgages | Outright ownership or joint venture with client owning 50% or greater interest | Midwest, Southeast and West | $3 million for direct investment; $500,000 for pooled investment | 6-9% initial yield; 12-15% internal rate of return | Acquisition: 1½% of gross purchase price; Portfolio management: ½% of asset valuation per annum; Property management: 2-5% of gross income per annum |
| Construction loans, land development, long-term mortgages | Subscription program | National | None | 14.8% | Variable per transaction |
| 100% real estate holdings (equities) | Limited partnerships only | Atlanta, Houston, Dallas, The Carolinas and Ohio | $750,000 | Varies from 6-11% on equity invested | Negotiable, but brokers fully protected |
| $10 million — undeveloped land; $40 million — income producing properties | Consulting and management | Southeast | $250,000 | 8-10% | Negotiated |
| — | 90% interest in mortgage loan pools of residential or commercial loans | Arizona and California (San Diego County) | $1 million | Market rate — usually 50 basis points over GNMA yields in cash market | None |
| Income producing properties | Pooled fund or individual properties | Southwest | $50,000 | 11-12% | 1% of market value annually |
| Income producing properties | Fund participation | National | None | 11.6% ending 6/30/80 | 1% |
| Fund F portfolio — 96.4% income producing properties and 3.6% mortgages | Fund F — open end commingled fund | National | None | Returns net of fees are not published. Return before fees is 16.6% (5/31/80 y-t-d) | Basic charge: $1,000 plus 1.2% of real estate market value |
| N/A | Real estate equity investments and mortgages | Texas and Southwest | — | — | Fee schedule furnished upon request |
| $51 million — residential; $131 million — income property mortgages | 90% construction loans<br>10% long-term mortgages | Continental U.S.A. | $1 million — residential<br>$3 million — income properties | Market yields less servicing fee | Varies from five to 40 basis points depending on loan type, loan size and services rendered |

| Name and address | Person to contact, phone | Total assets under real estate management ($ millions) | Number of tax-exempt real estate clients | Total tax-exempt real estate assets under management ($ millions) |
|---|---|---|---|---|
| **GENERAL MORTGAGE**<br>14323 South Outer Road<br>St. Louis, MO 63017 | Burl L. Garrison<br>President<br>314/878-6600 | 10 | Less than 5 | 2 |
| **GREAT-WEST LIFE ASSURANCE COMPANY**<br>60 Osborne Street North<br>Winnipeg, Manitoba R3C 3A5 | G. N. Coopland<br>Pension Investment Officer<br>204/946-9342 | 500 | Real estate investment fund offered as of 6/30/80 | 15 in the first two months; expected to grow to 100-200 over the first two years |
| **JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY**<br>John Hancock Plaza<br>P.O. Box 111<br>Boston, MA 02117 | Richard Troy<br>Vice President/Sales<br>617/421-6294<br>Richard Burns<br>Second Vice President<br>Real Estate<br>617/421-2964 | 265 | 45 | 265 |
| **HENDERSON INVESTMENT CORPORATION**<br>P.O. Box 2048<br>Orlando, FL 32802 | Edmond R. Henderson<br>President<br>305/423-1225 | 10 | N/A | 6 |
| **HERITAGE CORPORATION OF SOUTH FLORIDA**<br>1318 N.W. Seventh Street<br>Miami, FL 33136 | Edward Feinstein<br>President<br>305/324-4000 | 10 | 2 | 2 |
| **HORVITZ ENTERPRISES**<br>4151 Middlefield Road<br>Palo Alto, CA 94303 | Carl Horvitz<br>President<br>415/493-5555 | 25 | 10 | 6 |
| **JMB INSTITUTIONAL REALTY COMPANY**<br>John Hancock Center<br>875 N. Michigan Avenue<br>Suite 3900<br>Chicago, IL 60611 | John S. Lillard<br>President<br>312/440-5042 | 2,000 | 10 | 40 (committed) |
| **THOMAS L. KARSTEN ASSOCIATES**<br>10960 Wilshire Boulevard<br>Los Angeles, CA 90024 | A. Redmond Doms<br>Senior Vice President<br>213/473-1128 | 40 | 1 | 40 |
| **LANDSING**<br>431 Burgess Drive<br>Menlo Park, CA 94025 | J. Grayson Sanders<br>Executive Vice President<br>415/323-8313 | 150 | 3 | 10 |
| **LA SALLE ADVISORS, INC.**<br>208 South LaSalle Street<br>Chicago, IL 60604 | Kenneth M. Campia<br>President<br>312/782-5800 | 300 | 8-12 | 100 (projected for end of 1980) |
| **LEHNDORFF MANAGEMENT LIMITED**<br>3737 Noble Avenue<br>Suite 200<br>Dallas, TX 75204 | M. Thomas Lardner<br>Executive Vice President and General Manager<br>214/670-0400 | 1,000 in North America | None[2] | None[2] |
| **LIEBERMAN COMPANIES**<br>554 Middle Neck Road<br>Great Neck, NY 11023 | Bruce R. Lieberman<br>President<br>516/466-6565 | 30 | 1 | 2.5 |
| **LOEB PARTNERS REALTY**<br>521 Fifth Avenue<br>New York, NY 10175 | Gary L. Naughton<br>Vice President<br>212/883-0371 | 250 | 5 | 100 |
| **JOHN MCMAHAN ASSOC.**<br>201 California Street<br>Suite 400<br>San Francisco, CA 94111 | Joseph Azrack<br>Vice President<br>415/433-7770 | 25 | 2 | None[1] |

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[1] Pension fund clients are under portfolio management, but real estate investment not yet made.

[2] Pension fund real estate clients are foreign and not tax-exempt.

| Breakdown of assets into real estate holdings | Participation offered | Geographical diversification | Minimum investment | Return on investment (Net of fee) | Fee |
|---|---|---|---|---|---|
| 75% family mortgages; 20% income producing mortgages; 5% real estate managed | All types | Midwest | None | — | — |
| Assets to be invested in real property | Pooled fund units which are valued monthly | Canada | No minimum | N/A | .72 of 1% in addition to regular downscaled investment management fees |
| Income producing properties | Commingled funds | National | $500,000 | 19.3% | 1% |
| Income producing property | Partial or whole ownership | Southeast | $50,000 | 6-12 | Varies |
| $5 million — income producing property; $5 million — vacant land | Varies | Florida | $500,000 | Varies | 1-3% |
| Income producing property | Negotiated | West — preferably California | $2 million | Negotiable | Negotiable |
| Income producing properties | Equity only | National | $150,000 | 8% expected | 1.25% per year |
| Mortgages | — | West and Southwest | None | Varies | Negotiable |
| Income-producing real estate, garden apartments, shopping centers, office/industrial buildings | Closed and equity trust, participating debt, fee ownership | West | $1 million | Not reported | Negotiable |
| Income producing property | Ownership of shares in commingled fund with preemptive rights for future funding for initial subscribers | National | $250,000 | — | Advisory fee 1.25% |
| 85% income producing property; 10% undeveloped land; 5% mortgages | Varies | National | $2.5 million | Varies | Varies |
| Income producing | Varies | Southeast, Southwest | $500,000 | Varies | Negotiable |
| 90% income producing properties; 10% undeveloped land | None | Continental U.S.A. | $1 million | None | Negotiated |
| 100% income producing properties: office, shopping centers, R&D, and light industrial properties | 100% equity ownership and whole mortgages | Metropolitan areas primarily in sunbelt states and west of the Mississippi | $20 million recommended for direct investment | Varies depending on type of participation and property characteristics | Percentage of assets under management |

| Name and address | Person to contact, phone | Total assets under real estate management ($ millions) | Number of tax-exempt real estate clients | Total tax-exempt real estate assets under management ($ millions) |
|---|---|---|---|---|
| **MERRILL LYNCH, HUBBARD, INC.**<br>One Liberty Plaza, 19th floor<br>New York, NY 10080 | Robert Kinney<br>Vice President<br>212/637-4492 | 350 | 8 | 250 |
| **METROPOLITAN LIFE INSURANCE CO.**<br>One Madison Avenue, Area 2-H<br>New York, NY 10010 | Peter E. Braun<br>Assistant Vice President<br>212/578-2937 | 13,628.7 (12/31/79) | 8 | 45 (7/1/80) |
| **NORTH CAROLINA NATIONAL BANK**<br>One NCNB Plaza<br>Charlotte, NC 28255 | Floyd T. Boyce<br>Vice President/Trust Officer<br>704/374-8851 | 85 | 178 | 32.5 |
| **NORTHLAND MORTGAGE COMPANY**<br>6600 France Avenue South<br>Suite 570<br>Minneapolis, MN 55435 | Ivan S. Kerr<br>Executive V.P.<br>612/925-7736 | 100 — real estate portfolio<br>1,500 — mortgage servicing | 10 | 30 |
| **OLD DOMINION REAL ESTATE INVESTMENT TRUST**<br>8754 Landmark Drive<br>Richmond, VA 23228 | John P. McCann<br>President<br>804/264-9158 | 21 | 25 (shareholders) | Varies with market value |
| **OPPENHEIMER PROPERTIES, INC.**<br>One New York Plaza<br>New York, NY 10004 | James H. Levi<br>President<br>212/825-8180 | 750 | 20 | 50 |
| **PACIFIC INVESTMENT MANAGEMENT CO.**<br>P.O. Box 9000<br>Newport Beach, CA 92660 | Wayne W. Silzel<br>Mortgage Loan Portfolio Manager<br>714/640-3777 | 35.6 | 3 | 35.6 (5/30/80) |
| **PEARCE MAYER & GREER, INC.**<br>90 Park Avenue<br>New York, NY 10016 | Robert Graham<br>Senior Vice President<br>212/682-1400 | 50+ | 5 | 28 |
| **PENSION HOME LOAN CORPORATION**<br>21535 Hawthorne Boulevard<br>Suite 300<br>Torrance, CA 90503 | Karl Harz<br>President<br>213/540-4003 | 5 | 50 | 2 |
| **PREFERRED FINANCIAL CORPORATION**<br>18321 Ventura Boulevard<br>Tarzana, CA 91356 | Peter L. Saltman<br>Director of Special Industries Group<br>213/881-9032 | 130 | 100+ | 4 |
| **PROPERTY CAPITAL ADVISORS, INC.**<br>200 Clarendon Street<br>Boston, MA 02116 | John A. Cervieri, Jr.<br>President<br>617/536-8600 | 300+ | Approximately 50 | 300 |
| **PRUDENTIAL INSURANCE COMPANY OF AMERICA**<br>Group Pension Department<br>Prudential Plaza<br>Newark, NJ 07101 | Robert H. Dunphy<br>Vice President<br>201/877-7884 | 18,000+ (3/31/80) | 205 (3/31/80) | 1,744.1 (3/31/80) |
| **REPUBLIC NATIONAL BANK OF DALLAS**<br>P.O. Box 241<br>Dallas, TX 75221 | David J. Pittman<br>Vice President and Trust Officer<br>214/653-6506 | 125 | 20 | 30 |

| Breakdown of assets into real estate holdings | Participation offered | Geographical diversification | Minimum investment | Return on investment (Net of fee) | Fee |
|---|---|---|---|---|---|
| 25% income producing properties; 75% mortgages | Direct portfolio ownership | National | $5 million debt portfolios; $10 million equity portfolios | Depends on client policy | Negotiated |
| 43.2% income producing properties; 19.2% mortgages; 31.6% construction loans; 6.0% other | Purchase of units in commingled fund | National | $100,000 | One-year average annualized rate of return to 3/31/80 — 19.2% | 1% of net assets |
| 71% income producing properties; 15% mortgages; 14% undeveloped land | Individually structured portfolio or commingled fund | Southeast | $5 million initial commitment for individual portfolio; No minimum for commingled fund | Compounded annual rate of 12% since inception of real estate fund | 1.2% of market value annually |
| Income producing properties — $75 million; undeveloped land — $30 million; mortgage servicing — $1.5 billion | — | National | Open | Open | Open |
| Income producing properties (apartments, shopping centers) | Shares of beneficial interest, traded OTC | Virginia and Southeast | — | Dividend yield: 9%<br>Cash flow: 11% | None |
| Income producing properties | Outright purchase, joint ventures, mortgages | National | $1 million | Varies | None |
| Commercial property loans — $5.1 million; single-family residential loans — $30.5 million (5/30/80) | Intermediate and long-term financing, whole loans only | National | $1 million on commercial property loans | Market rates | Negotiable |
| — | Brokerage and management | National | $3 million | Varies | Open |
| Mortgages | Whole or part of mortgage offering | California | $10,000 | Varies | None |
| Income producing properties | Limited partnerships | Sunbelt states | $5,000-$20,000 | 12% minimum | Varies |
| Income producing properties — $200 million+; subordinated mortgages — $100 million | Varies | Continental U.S.A. | $1 million | Varies depending on type of investment | Negotiable |
| Income producing properties — $1,569.3 million; mortgages — $18.4 million; Short-term investments, accrued investment income, other: $156.4 million (3/31/80) | Open-end fund limited to pension plans which qualify as contract-holders | National | $50,000 with reasonable expectation of $200,000 annually | 28.0% | 1.5% of gross assets of Prudential Property Investment Separate Account, subject to change |
| 30% income producing; 33% mortgages; 37% undeveloped land | Private placement and pooled fund (closed end) | Sunbelt and major population centers | $1 million | N/A | Published schedule available on request |

| Name and address | Person to contact, phone | Total assets under real estate management ($ millions) | Number of tax-exempt real estate clients | Total tax-exempt real estate assets under management ($ millions) |
|---|---|---|---|---|
| **THE RREEF CORPORATION**<br>650 California Street<br>San Francisco, CA 94108 | Alander F. Hogland<br>Principal<br>415/781-3300 | 540 | 25 | 540 |
| **RREEF MIDAMERICA**<br>200 E. Randolph Drive<br>Chicago, IL 60601 | Donald A. King, Jr.<br>Principal<br>312/938-0100 | 540 | 25 | 540 |
| **SAMOTH REAL ESTATE CORPORATION, LTD.**<br>1213-345 Quebec Street<br>Victoria, B.C. V8V1W4 | Richard D. B. Talbot<br>President<br>604/388-5123 | 200 | 10 | 50 |
| **SCUDDER REALTY ADVISORS, INC.**<br>333 South Hope Street<br>37th Floor<br>Los Angeles, CA 90071 | David R. Bryant<br>Vice President<br>213/628-1144 | 210 | Predominantly tax-exempt | 210 |
| **SMITH BARNEY REAL ESTATE CORPORATION**<br>1345 Avenue of Americas<br>New York, NY 10019 | Stephen Treadway<br>Vice President<br>212/399-6505 | 275 | 22 | 40 |
| **STARKEY BRIGHT & WILLIS**<br>18023 Sky Park Circle, F-2<br>Irvine, CA 92714 | Dan B. Starkey<br>President<br>714/549-1930 | 33 | 54 | 14 |
| **RALPH C. SUTRO COMPANY**<br>4900 Wilshire Boulevard<br>Los Angeles, CA 90010 | Terry Flowers<br>Senior Vice President<br>John Collins<br>Senior Vice President<br>213/937-4000 | 2,100 | 25 | 300 |
| **THE TRAVELERS INSURANCE COMPANY**<br>One Tower Square<br>Hartford, CT 06115 | Thomas E. Keating<br>Vice President<br>203/277-7777 | 6,000 | 30 | 6,000 |
| **UNION FEDERAL SAVINGS & LOAN**<br>523 West Sixth Street<br>Los Angeles, CA 90014 | Dave A. Underwood<br>Vice President<br>213/688-8513 | 1,000 | 35 | 45 |
| **WACHOVIA BANK AND TRUST COMPANY**<br>P.O. Box 3099<br>Winston-Salem, NC 27102 | Peter R. Hilgert<br>Vice President<br>919/748-6103 | 500 | 308 | 200 |
| **WELLS FARGO REAL ESTATE EQUITY FUND**<br>475 Sansome Street, #975<br>San Francisco, CA 94111 | Thomas W. Richardson, Jr.<br>Vice President<br>415/396-5094 | 4,000 | 85 | 103 |

| Breakdown of assets into real estate holdings | Participation offered | Geographical diversification | Minimum investment | Return on investment (Net of fee) | Fee |
|---|---|---|---|---|---|
| Income producing properties | Units and shares of beneficial interest | Seattle, Portland, Denver, San Francisco, Sacramento, Los Angeles, Orange County, San Diego, Phoenix | $1.05 million | N/A | N/A |
| Income producing properties | Units of beneficial interest | Chicago, Cleveland, Columbus, Dallas, Cincinnati, Dayton, Detroit, Houston, Indianapolis, Kansas City, Milwaukee, Minneapolis, St. Louis | $1.05 million | N/A | N/A |
| $150 million — income producing properties; $50 million — mortgages and undeveloped land | Negotiable | Western states and provinces | $1 million + | Negotiable | Negotiable |
| 20% income producing properties; 80% mortgages | Investment adviser or manager of real estate portfolio | West | $25 million + | Dependent on client | Continuing supervision fee of 1/5 of 1% for mortgages and credit purchase/leasebacks and ½ of 1% for equity investments, plus initial research and processing fee |
| Income producing properties | Units of participation in commingled fund | Currently East and Southeast | $250,000 | 15.3% (1979) | Based on contributed capital and cash distributions |
| Income producing properties | Limited partnerships and individual ownership | West | $5,000 | 10% minimum plus after guarantee | Varies |
| Income producing properties — commercial properties, insured residential, conventional residential, GNMA pools | Construction loans, take-out loans, interim financing, portfolio servicing | National | Open | Varies | Negotiable |
| Separate account R breakdown — 75% income producing properties; 25% mortgages (5/31/80) | Separate account R (open ended pooled fund) | East, South, Midwest and West | $100,000 | 10.3% (1979) | 1% (effective annual) of net assets |
| Mortgages | Outright sale | California and Arizona | $500,000 | Negotiable | Negotiable |
| 65% fully leased developed properties; 25% land in development stage; 10% cash earmarked for equity development and miscellaneous | Units of pooled fund or individually managed portfolio | National | None | Published schedule available | 1% on fully developed properties |
| 100% income producing properties — 50% industrial, 25% office buildings, 25% shopping centers | Commingled fund and separate accounts | West and Southwest | $100,000 | 13.9% (1979) | 1.25% of net assets |

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# Pension World

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## Directory of Insurance Company Employee Benefits Services

## Pullman gears its fund for the long haul

## Insurance firms' new products

## In pursuit of customized GIC's

October 1980

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Volume 16 Number 10

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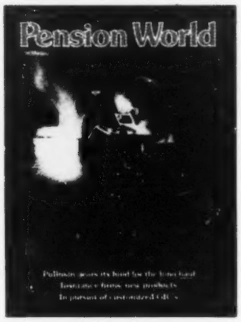

Cover: A Pullman welder fabricates part of a piping assembly for a generating station. How Pullman fabricates its pension plan begins on page 14.

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# Pass-through securities

### by Fred M. Sessoms

In the past, the problem with real estate-oriented investments for pension money managers was that the inherent risks involved in an investment market long regarded as entrepreneurial far outweighed the possibilities for potential high returns on invested dollars. The next step was obvious, and follows the "If you can't bring Mohammed to the mountain . . ." adage. The real estate market had to adapt itself to the investment criteria of pension money managers: "preservation of plan assets through investments which offer a high rate of return with a minimum of risk." With the relatively poor performance of the stock and bond markets following 1970, the timing had never been better.

Beginning in 1970, the first real attempt to attract Wall Street type dollars (such as money in employee benefits plans) into the residential real estate market was the introduction of the Government National Mortgage Association "Ginnie Mae," mortgage-backed, pass-through security. Ginnie Mae's, guaranteed by the Government National Mortgage Association, are issued by mortgage bankers, commercial banks, savings and loan associations, savings banks, and other institutions and are predominately backed by FHA, VA, or FmHA home mortgages. The Ginnie Mae security holder is protected by the full faith and credit of the U.S. government.

Ginnie Mae pass-through securities have gained wide investor acceptance since their inception, with over $70 billion in outstanding securities and new originations of over $15 billion per year.

Soon after the introduction of Ginnie Maes, the Participation Certificate (P.C.) issues of the Federal Home Loan Mortgage Corporation ("Freddie Mac") followed. P.C.'s are certificates secured by pools of conventional home mortgage loans, their principal and interest guaranteed by the Federal government through "Freddie Mac." P.C.'s also enjoy a healthy level of respect from the investment community, as there are currently close to $15 billion in securities outstanding, with dealers in the secondary market trading over $20 billion per year.

The total mortgage debt outstanding on real estate has grown from $72.8 billion in 1950 to $1,334.3 trillion through 1979. During the entire period from 1950 to 1979, one-to-four unit residential mortgage debt has never fallen below 60 percent of the total outstanding real estate mortgage debt.

Outstanding mortgage debt through 1979 on one-to-four unit residential properties stood at an unprecedented $872.1 billion, or 65.3 percent of the total. Of this total, conventional mortgage loans were much greater than the outstanding debt represented by FHA and VA mortgage financing. The once popular FHA loan introduced in the 1930's became overshadowed in the 1960's by the conventional mortgage. Many reasons contributed to this shift, foremost among them continued inflation, keeping interest rates at high levels. Acceptability of conventional mortgages was also stimulated by the advent of private mortgage insurance, which allows lenders to make high loan-to-value ratio mortgages without bearing all the risks.

It is clear that Ginnie Mae mortgage-backed securities and Freddie Mac Participation Certificates do not come close to tackling outstanding mortgage debt. Even with adding the estimated $70 billion per year refueled into the industry through direct whole loan and participation secondary market sales, the burgeoning needs still are not matched.

The mortgage industry is finding ways to narrow outstanding mortgage debt by tailoring the residential mortgage into sophisticated investment packages which are catching the eye of pension money managers across the country. Gaining rapidly in acceptability are private and publicly placed mortgage-backed pass-through securities, collateralized by conventional mortgages, issued by savings and loans, commercial banks, mortage bankers, and private mortage insurance companies. The Department of Labor, in a recent publication, describes these pass-throughs as investment pools, the corpus of which consists of first mortgage notes either originated by the sponsor of the pool or purchased by the pool sponsor directly from the mortgage lender, as in cases with private mortgage insurance companies (The Department of Labor uses the word *sponsor* to indicate the organizer of a pool to avoid confusion as to the actual originator of the underlying mortgage loans.)

The assembled mortgage documents are transferred by the pool sponsor to an independent fiduciary known as the trustee. The pool trustee then transfers to the pool sponsor certificates representing fractional, undivided beneficial interests in the pooled mortgages. The certificates are then issued by the pool sponsor in public or private offerings to investors, including employee benefits plans. Principal and interest payments made by individual mortgagors are

*Frederick M. Sessoms is vice president of Wannamaker Associates in Hilton Head Island, S.C.*

**Total Assets**

| | Commercial Banks | Life Cos. | S&L's | MSB's | Pension Funds |
|---|---|---|---|---|---|
| 1950 | 168.9 | 64.0 | 16.8 | 22.4 | 25.0 |
| 1955 | 202.4 | 90.4 | 37.6 | 31.3 | 75.0 |
| 1960 | 257.5 | 117.9 | 71.5 | 40.3 | 100.0 |
| 1965 | 361.7 | 156.0 | 129.6 | 58.2 | 200.0 |
| 1970 | 576.2 | 203.9 | 172.9 | 77.8 | 260.0 |
| 1975 | 934.4 | 280.5 | 333.4 | 118.6 | 480.0 |
| 1980 | 1,486.5 | 435.0 | 585.6 | 163.3 | 560.0 |

Figures in billions of dollars; all figures rounded; 1980 figures through April 1980.
Pension Assets: Estimates from reliable industry sources.
Source: Federal Reserve Board

**Mortgage Debt as a Percentage of Total Assets**

| | Commercial Banks | Life Cos. | S&L's | MSB's | Pension Funds |
|---|---|---|---|---|---|
| 1950 | 8.0% | 25.2% | 81.0% | 37.0% | N/A |
| 1955 | 10.4% | 32.5% | 83.5% | 50.0% | N/A |
| 1960 | 11.9% | 35.4% | 84.0% | 67.0% | N/A |
| 1965 | 13.7% | 38.5% | 85.1% | 76.6% | N/A |
| 1970 | 12.4% | 36.0% | 85.4% | 73.3% | N/A |
| 1975 | 14.3% | 31.4% | 82.1% | 51.4% | N/A |
| 1980 | 18.0% | 28.0% | 81.3% | 61.0% | 3.0% |

passed through the mortgage pool in the form of fixed monthly payments to certificate holders, with the pool sponsor retaining a fixed percentage of the interest as a servicing fee. The monthly remittance of principal and interest is important to many pension money managers who prefer ongoing cash flow.

A description of the Bank of America mortgage pass-through security program better describes the intricate workings of this investment package. Since inception of pass-throughs, the Bank of America has issued pools with aggregate principal amounts exceeding $600 million. The aggregate principal amount of all issues, including those of B of A, is just over one billion dollars.

The first step in the Bank of America program, as with any pass-through issue, is the selection of mortgages previously originated to be included as pool collateral. The Bank of America program stipulates that mortgage loans chosen for a mortgage pool must be single-family mortgage loans (rather than construction or land development loans) secured by mortgages on non-farm property comprising one-to-four dwelling units. Collateral used by other issuers may vary. These mortgages must have a loan-to-value ratio of 80 percent or less and principal balances between $20,000 and $150,000. Principal and interest must be payable on a level debt service basis, i.e., monthly, whereby principal is repaid on an accelerated basis over the life of the loan. Mortgaged properties securing the loans included in the pool must be geographically dispersed throughout the lender's servicing area.

Once the selection process is completed, mortgages that meet the outlined criteria are shipped to the pool trustee, a totally autonomous entity of the issuer. It is the trustee's duty to verify that each mortgage is a valid first lien, that the issuer has clear title to each mortgaged property, and that all loan documentation is complete. Basically, if these conditions are met, the trustee, in turn, ships pass-through certificates to the issuer for private or public sale.

If the conditions are not met — for example, if the issuer does not have complete loan documentation — it is the issuer's duty to either repurchase, replace, or correct the situation with adequate documentation. The relationship between the issuer and the trustee is known as the pooling and servicing agreement. Viewed simply, it is an agreement setting forth a system of checks and balances lasting throughout the life of the mortgage pool. The issuer agrees to continuously service each of the mortgage loans, and the trustee's watchful administration makes certain the issuer lives up to his original end of the bargain. If for some reason the issuer/servicer defaulted or went bankrupt, the trustee would assume his duties.

The issuer, under the pooling-servicing agreement, sets the pass-through rate, or the investor's rate of return, as specified on each of the certificates. This pass-through rate is produced after taking several considerations into account. The most important consideration is plotting the pass-through rate to the prevailing money market. Also, the pass-through rate is never

**Given that the pension money manager can achieve the high rate of return he is looking for by investing in pass-throughs, where is the by-passing of risks, necessary to preserving plan assets?**

higher than the lowest mortgage interest rate found in the pool. The pass-through rate is used as a base in pricing by the issuer, whereby, due to market conditions, the issuer can offer certificates to investors at both an acceptable price and return on invested dollars.

Let's examine a hypothetical market example. As a pension money manager, you have decided to diversify your portfolio toward mortgage investments. You look at the residential mortgage market and see that a whole loan or participation sale from an originator is available at a 12 percent yield. A "tombstone" you notice in the *Wall Street Journal* asserts that an issuer is offering mortgage pass-through certificates at a stated rate of ten percent. Clearly, the issuer, taking current market conditions into account, must price the certificates applicably at a favorable discount in order to compensate for the difference.

Opposite to pricing at a discount, pricing at a premium is a condition which has happened, but is not a frequent occurrence in normal market cycles. Suppose you go to the market and see that prevailing home mortgage rates are ten percent, and the pass-through rate on an issue you notice is 12 percent, thereby priced at a premium. Looking for a long-term investment, it would probably be more prudent to stay away from the pass-through because paying the premium for extra yield would probably put you in a situation where the mortgages collateralizing the issue stand a good chance of being prepaid earlier than expected, due to refinancing by individual home buyers.

On an issue collateralized by 30-year, fixed-rate mortgages, the issuer retains the difference in interest between the pass-through rate and the interest rate on each loan in the pool, compensating him for servicing and other costs incurred. In addition, the issuer usually retains any prepayment or late payment fees from mortgagors.

**Comparative Price Changes**

| | Common Stocks | Percent Change | Average Sales Prices New SFD Homes | Percent Change | Consumer Price Index | Percent Change |
|---|---|---|---|---|---|---|
| 1950 | 14.60 | | $ 9,781 | | 72.1 | |
| 1955 | 34.20 | +134.2% | $12,113 | + 24.0% | 80.2 | + 11.2% |
| 1960 | 55.85 | + 63.3% | $14,662 | + 21.0% | 88.7 | + 10.5% |
| 1965 | 88.17 | + 57.8% | $21,500 | + 46.0% | 94.5 | + 6.5% |
| 1970 | 83.22 | – 5.6% | $26,600 | + 23.7% | 116.3 | + 23% |
| 1975 | 85.17 | + 2.3% | $42,600 | + 60.1% | 161.2 | + 38.6% |
| 1979 | 98.34 | + 15.4% | $71,800 | + 68.5% | 236.4 | + 46.6% |
| 1950-1979 | Percent Change | +573% | | +634% | | +227% |

Sources: U.S. Department of Labor, Bureau of Labor Statistics, Housing and Urban Development, Federal Reserve Bulletin

Remembering that the pass-through rate is never higher than the lowest interest rate in the pool, a situation may occur where this rate appears to be substantially lower than the average interest rates in the pool, and it seems that the issuer is getting wealthy at your expense. This is not the case. The bulk of these proceeds goes to pricing the certificates at a discount in order to offer an acceptable rate of return for investors. Other expenses must be paid by the issuer as specified in the pooling-servicing agreement, such as the trustee's fees, mortgage guaranty pool and hazard insurance premiums, legal expenses, etc.

Given that the pension money manager can achieve the high rate of return he is looking for by investing in pass-throughs, where is the by-passing of risks, necessary to preserving plan assets? After all, when investing in Ginnie Maes and P.C.'s, the holder is guaranteed the timely payment of principal and interest by the U.S. government. Like Ginnie Maes, with B of A type pass-throughs, mortgagor's payments are held in a non-interest bearing account until transferred to the trustee for distribution to certificate holders.

The rating of the issue by either of the rating services can also be viewed as a safety feature ensuring the credibility of the issuer and the quality of the underlying collateral. Standard and Poor's takes four factors under consideration before preparing a rating: 1) the nature of the collateral in the pool, 2) capabilities of the issuer/servicer, 3) the level and nature of the insurance or equity reserve, and 4) the capabilities of the mortgage insurance company.

**The pass-through security represents only one new prudent investment tool for employee benefits plans diversifying toward real estate.**

In past issues, the Bank of America has volunteered to make immediate advances from its own funds as compensation for losses, if any, due to defaults in mortgagor's payments, provided such losses are recoverable by the pool policy. This provision maintains the constancy of payments to certificate holders. Just recently, the path has been cleared by the Federal Home Loan Bank Board and the Comptroller of the Currency, whereby pool and hazard insurance may no longer be necessary in assuring regular distribution of payments to certificate holders. Special reserves of five to ten percent of the aggregate principal value of the pooled mortgage loans can be set aside by the issuer and drawn upon by the trustee in the event of delinquencies or defaults. This new feature will be utilized increasingly in future issues in lieu of pool insurance policies. With this new concept, payments to certificate holders would remain uninterrupted, as may not be the case with delays in utilizing pool insurance policies to recover losses.

Mortgage pool insurance covers any loss in the event of default in payments in an amount equal to five percent of the initial aggregate principal balance of the underlying mortgage loans. The hazard insurance policy covers every mortgage in the pool to the maximum insurable value of the improvements or the amount of the loan's remaining principal balance, whichever is less. Some issues offer additional protection to certificate holders by taking out special hazard insurance policies in an amount usually equal to one percent of the initial aggregate principal balance of the underlying mortgages, which alleviates losses from such acts of nature as flooding, earthquakes, and mudslides.

Theoretically, the B of A and similar pass-through security issues remain in existence until all the mortgages in the pool are paid off. However, the issuer retains the right to repurchase all the loans in the pool, thus ending the pool, when the outstanding aggregate principal balance falls under ten percent of the original aggregate principal balance. While industry statistics show that the average life of 30-year, fixed-rate mortgages is 12 years, and in some areas of the country less, because of the nature of the pool, this ten percent level is not expected to be reached earlier than 15 years. Repurchasing the certificates at fair market value plus accrued interest at the pass-through rate once the ten percent level is reached should be viewed as desirable to certificate holders, as the resale market for certificates of such small pools would be slim, if not nonexistent.

The pass-through security represents only one new prudent investment tool for employee benefits plans diversifying toward real estate. As the real estate market evolves, so, too, will investment opportunities. Indeed, hybrids of the B of A program are quickly gaining investor acceptance in the open market today. Importantly, the real estate market, adapting to investor needs, is shifting away from its earlier entrepreneurial connotations. □

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